HP StorageWorks
Reference Information Storage System
User Guide

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CHAPTER 1

RISS Overview

This chapter introduces HP StorageWorks Reference Information Storage System (RISS) from a user perspective. It introduces key concepts and provides an overview of the RISS applications.

RISS Concepts

RISS Applications

RISS is a fault-tolerant, secure system of hardware and software that archives files and email messages for your organization, and lets you search for archived documents.

You interact with the system using the RISS applications.

Table 1-1: RISS Applications

Application	What You Can Do
RISS Web Interface	Search for files and email messages using a web browser.
RISS Outlook Interface (customer option)	Search for email messages using Microsoft Outlook with an Exchange mail server. View and work with archived email messages.
Document Manager (customer option)	Archive files by dragging them to a Windows desktop folder.

The Outlook Interface and Document Manager applications are independent customer options. Depending on the configuration of your system, each may or may not be available to you.

Web Interface Application

All RISS users have access to the RISS Web Interface. Using your web browser you can search for documents archived on the system, and save and reuse your search-query definitions and results.

Outlook Interface Application

If your RISS configuration includes the RISS Outlook Interface customer option, you can also search from within Microsoft Outlook for email messages archived in the system as well as view and work with archived messages.

Document Manager Application

If your RISS configuration includes the Document Manager customer option, you can manually archive files, placing them in your repository along with your automatically archived email messages.

See Also

- Chapter 2, *RISS Web Interface*

- Chapter 3, *RISS Outlook Interface*

- Chapter 4*, Document Manager*

Understanding Document Archiving

The RISS software archives files and email messages associated with registered users. As a registered user, you can find and retrieve archived documents to which you have access.

Archiving involves physically storing a single copy of a **document** (file or email message), but virtually storing it in one or more repositories. A **repository** is an abstract data store, which is a virtual collection of documents associated with routing rules (for storing) and user access control lists (for retrieving):

- Documents associated with a given user are archived to a given set of repositories. User–repository associations are defined by **routing rules**.

- A user has query and retrieval access to a given set of repositories. This is controlled by **access control lists** associated with each repository.

Most users have query and retrieval access to only their own documents, which are archived in their individual repositories. The system automatically archives, in your individual repository, all email messages associated with your email account; that is, all messages you send or receive.

In addition to being automatically routed to your individual repository, your email is probably also routed to one or more other repositories established by your company or organization. For example, a company audit repository may be used to keep track of all company email. Some users have access to other repositories, besides their own. For example, your manager or supervisor may have access to your repository.

Understanding Searching and Document Indexing

You can search for any documents archived in your repository (or any other repositories to which you have access), whether the documents are email messages or files. When you search for a document, your query is checked against an index of words that is updated each time a document is archived.

You can use the Document Manager customer option to archive files manually. For an archived file, the index always includes at least the external identifying information of the file, such as the file name and last modification date. This is true for all files, regardless of file type.

With the Document Manager customer option, you can archive any type of file. However, the system only indexes the contents of email messages and certain types of files, referred to here as **loose office documents**. The contents of other files are not indexed (only their external identifying information is indexed).

Whether or not you have the Document Manager option, email attachments are indexed similarly to files archived with Document Manager. The contents of attachments that are loose office documents are indexed. Otherwise, only the attachment (file) name is added to the index.

Indexing the contents of a document, whether email message or loose office document, involves cataloging the document words to prepare them for later searching. Minor words like "the" are called **stop words** and are not indexed. Similarly, separators (such as punctuation) between words are ignored during indexing.

You can search the contents of a document only if the contents have been indexed, which means you can search the contents of email messages and loose office documents only. You can search for other kinds of files only by using external identifying information.

Loose office document files include the following:

- Plain text files

- HTML (HyperText Markup Language) files

- End-user files used by the following Microsoft Office programs: Word, Excel, PowerPoint, and Access

- PDF (Portable Document Format) files viewed with Adobe Acrobat Reader

The exact set of file types that are considered loose office documents (that is, whose contents are indexed) depends on the RISS configuration.

Note: Email message formatting has no bearing on indexing. Only the words you see in your email client are indexing candidates. Invisible source-code words, such as HTML markup tags, are ignored.

Message MIME Types (Advanced Users)

An email message can contain message parts of possibly different MIME (Multipurpose Internet Mail Extensions) Content-Types. The following Content-Types are indexed and each corresponds to one of the loose office document types:

- text/plain

- text/html

- application/msword

- application/vnd.ms-excel

- application/vnd.ms-powerpoint

- application/msaccess

- application/pdf

- application/ms-tnef

An email message that is entirely plain text, not MIME, is indexed. Also, if you attach an email message to another email message, the attached email message is not indexed.

Hidden text, including hidden columns in Excel and deleted text in Office documents that may have been saved in a previous version using the Fast Save feature, may be indexed due to the type of indexing technology used by RISS.

See Also

- Chapter 5, *Query Syntax and Matching*, for details on stop words and just which document contents are indexed.

CHAPTER 2

RISS Web Interface

This chapter describes the web browser interface to Reference Information Storage System (RISS). It explains how to search for documents archived in RISS, and how to save and reuse search-query definitions and results.

This chapter contains the following topics:

See Also

- Chapter 1, *RISS Overview*, for fundamental concepts.

- Chapter 5, *Query Syntax and Matching*, for information on the syntax of queries and how queries are matched against document fields.

Logging In to the RISS Web Interface

To access the RISS Web Interface, enter the URL (web address) in the Address field of your web browser. See your system administrator for the URL to use and to verify you have a supported web browser.

The web browser displays a login screen, where you enter your RISS User Name and Password. These are typically the same as your Microsoft Exchange user name and password. Both of these fields are case-sensitive.
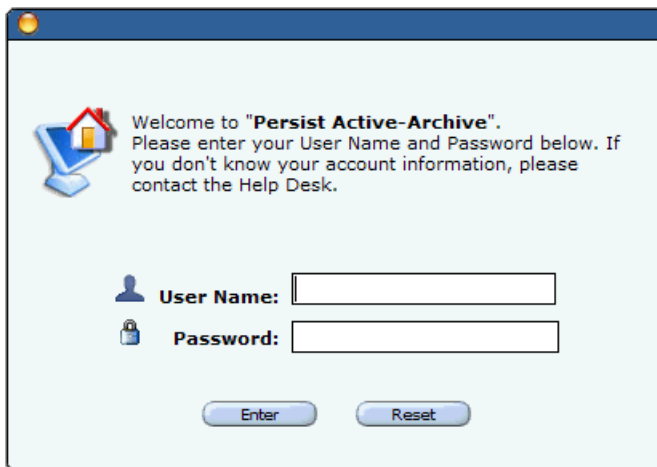
Figure 2-1: Login screen, RISS Web Interface

Note: The first time you log in, you will use a temporary password provided by your system administrator. Change your password immediately after logging in for the first time – see *Preferences Page,* on page 2-27.

After you log in, the Simple Search page is displayed.

See Also

- *Preferences Page,* on page 2-27

- *Simple Search Page,* on page 2-4

Web Interface Toolbar

Each page of the RISS Web Interface has this toolbar at the top:

| New Search | Query Manager | Preferences | Help | LogOut |
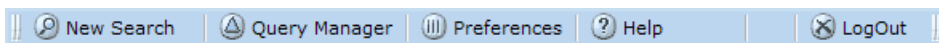
Figure 2-2: Web Interface toolbar

The toolbar has the following features:

Table 2-1: Toolbar Features, Web Interface

Feature	Description
New Search	Click to display the Simple Search page, where you can submit a query.
Query Manager	Click to display the Query Manager page, where you can do any of the following:
• Save Query Criteria	• Save the definition (search criteria) of the last-submitted query – see *Saving Query Definitions,* on page 2-25.
• Display Saved Queries	• Display or delete a saved query definition (search criteria) – see *Accessing Saved Query Definitions,* on page 2-26.
• Save Results	• Submit the last-submitted query again as a background process and save the results – see *Submitting Background Queries and Saving Results,* on page 2-22.
• Display Saved Results	• Display the saved results of a background query, or mail them to yourself – see *Accessing Saved Results of Background Queries,* on page 2-23.
Preferences	Click to display the Preferences page, where you can:
	• Initialize your RISS Outlook account (if you have this customer option), so you can search your repository from within Microsoft Outlook
	• Change your password for accessing the RISS Web Interface
	See *Preferences Page,* on page 2-27.
Help	Click for online help about the RISS Web Interface.
LogOut	Click to log out of the RISS Web Interface.

Simple Search Page

The Simple Search page is displayed initially, after you log in to the RISS Web Interface. After you are logged in, you can access this page at any time by clicking New Search in the toolbar or Simple Search at the upper right.

Pick whether to search for   Pick time period   Click to switch to   Pick repository
emails or files (documents)   to search   advanced search   to search

Enter search words, and then click Find Now
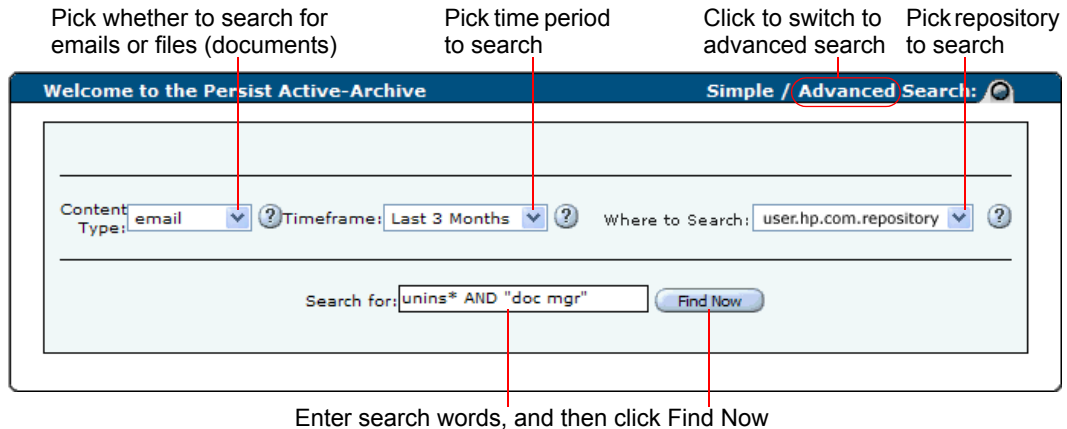
Figure 2-3: Simple Search page

To change to the Advanced Search page, click Advanced at the upper right.

You can use the Simple Search page to search for documents (email messages or files) containing words you enter in the Search for field.

Note: In the Search for field, you can enter simple words, words with wildcards, or a more sophisticated query involving Boolean expressions or word sequences. Considering this flexibility, the Simple Search page does not really limit you to simple searches! This page is only simpler than the Advanced Search page in the sense that there are fewer fields you can search on.

You also choose all of the following on the Simple Search page:

- Content Type – Whether to search for files (document) or email messages (email).

- Timeframe – The time period to search. This includes the last-modified date of a file or the date an email message was sent. You can choose any of these time periods:

  - Last Week

  - Last Month

  - Last 3 Months

  - Last year

  - Last five years

- Where to Search – The repository to search. The repositories you have access to are the available choices. At a minimum, you have access to your own repository. A repository is a virtual collection of documents (email messages and files).

- Search for – What to search for in the document contents. For email messages, this searches for words in the message body, but not in other message fields such as Subject, From, or To.

When you have finished defining your query, click Find Now to start the search.

See Also

- *Advanced Search Page,* on page 2-8

Search For Field

The Search for query field is common to the Simple Search and Advanced Search pages. If you want to search for certain words, you can use this field to search the contents of a document.

Using the Search For Field

In the Search for text field, you enter the search words to look for. The query syntax allowed for any text field is described in Chapter 5, *Query Syntax and Matching*. You can enter simple words, words with wildcards, or a more sophisticated query involving Boolean expressions or word sequences.

Usage Note: Make your Search for text as specific as possible, to narrow the search to the documents you want to find. In general, the more information you provide in the Search for field, the narrower the search. If the field is blank (empty), you will find all documents corresponding to the other fields.

The Search For Field Searches Indexed Contents

The Search for field is checked for a match against the indexed contents of documents (email messages or files).

- For files, Search for applies only to loose office document files. Other types of files do not have indexed contents, so their contents cannot be searched.

- For email messages, the Search for field applies to the message body. In addition, any attachments to a message are treated as files to be searched, so the Search for field also applies to message attachments that are loose office document files.

Loose office document files include the following:

- Plain text files

- HTML (HyperText Markup Language) files

- End-user files used by the following Microsoft Office programs: Word, Excel, PowerPoint, and Access

- PDF (Portable Document Format) files viewed with Adobe Acrobat Reader

The exact set of file types that are considered loose office documents (that is, whose contents are indexed) depends on the RISS configuration. See your system administrator for more information.

See Also

- Chapter 5, *Query Syntax and Matching*

Advanced Search Page

After you are logged in, you can access the Advanced Search page at any time by clicking Advanced Search at the upper right.

Pick whether to search for
email messages or files (documents)

Click to switch to
simple search

Enter
search
words in
text fields

Pick time
period to
search

Pick
repository
to search

Click to start searching   Click to reset (empty) search form

Figure 2-4: Advanced Search page (email content type)

To change to the Simple Search page, click Simple at the upper right.

All of the Simple Search fields are available on the Advanced Search page as well:

- Content Type – Whether to search for files (document) or email messages (email).

- Search for – What to search for in the document contents.

- By TimeFrame – The time period to search. This includes the last-modified date of a file or the date an email message was sent. You can choose any of these time periods:

  - Last Week

  - Last Month

  - Last 3 Months

  - Last year

  - Last five years

- Where to Search – The repository to search. The repositories you have access to are the available choices. At a minimum, you have access to your own repository. A repository is a virtual collection of documents (email messages and files).

- Search – Start the search. (Same as the Find Now button on the Simple Search page.)

As an alternative to the By TimeFrame field, which lets you choose a predefined time period, you can define a period to search by specifying the Start and end (To) dates. For example, to search for documents dated between March 8, 2003 and March 23, 2003, you would enter a Start value of 03/08/2003 and a To value of 03/23/2003.

You can use the Advanced Search page to search for structured documents (email messages or files) using multiple query fields. The query fields are matched against the corresponding document fields. In addition to the fields of the Simple Search page, the Advanced Search page provides the following query fields to help you refine your searches. The available fields depend on the Content Type of the documents you seek.

Table 2-2: Additional Advanced Search Query Fields

Query Field	Matches (in the Document)
Email Content Type Only	
Subject	The Subject message field.
From	The From message field.
To	All message recipients. This includes the To, Cc, Bcc, and Apparently-To message fields.
Attachment	The file name of a message attachment. (The contents of loose office document attachments are searched using the Search for field – see *The Search For Field Searches Indexed Contents,* on page 2-6.)
Message ID	The Message ID message field, a message identification number (not all messages have Message IDs). You use this field mainly for audit searches.
	To see the Message ID field using Microsoft Outlook:
	1. Open the message in its own window by double-clicking it.
	2. Choose the View -> Options menu item. This displays the Message Options dialog box.
	3. If the message has a Message ID field, this field is shown in the Internet headers field of the Message Options dialog box. Example: Message-ID: <LISTMANAGER-115380-9228-2003.03.04-17.34.24--user#hp.com@lists.FrameUsers.com>.
Document (File) Content Type Only	
Document Name	File name, not including the file extension.
Document Path	File path.
	Usage Note: As for any other text query field, separators such as slash (/), backslash (\ ), and colon (:) are ignored, and the query words are sought in any order. For example, query text c:\foo\bar will match path foo:\bar\c, as well as path c:\foo\bar.
	To ensure that path components are sought in order, enclose the field text in double-quotes (") to use a word-sequence query. See Chapter 5, *Query Syntax and Matching,* for a complete definition of the Search Engine query syntax.
Extension	File extension. Example: doc for a Microsoft Word file.

Table 2-2: Additional Advanced Search Query Fields (Continued)

Query Field	Matches (in the Document)
Title	Title of the document. Only some files have associated titles. For example, to see the title of a Microsoft Word document, choose File -> Properties (in Word). The Title field is shown on the Summary panel of the displayed Properties dialog box.
Author	Author of the document. Only some files have associated authors. For example, to see the author of a Microsoft Word document, choose File -> Properties (in Word). The Author field is shown on the Summary panel of the displayed Properties dialog box.

The Advanced Search page also has a Clear button, which you can click to reset (empty) all the fields on the page.

See Also

- *Simple Search Page,* on page 2-4

- Chapter 5, *Query Syntax and Matching*

Accessing Query Results

Query Results Page

The Query Results page is displayed as soon as you submit a (foreground) query. You can display the Query Results page for the saved results of a background query by clicking the corresponding Reload button on the Display Saved Results panel of the Query Manager page.

You can see the results of a query on the Query Results page:

Figure 2-5: Query Results page (email content type)

The following table describes the features of the Query Results page:

Table 2-3: Query Results Page Features

Feature	Description
query results navigation bar	Indicates which group of twenty results (maximum) is currently displayed. Click different symbols to display a different group of twenty results (maximum). See *Query Results Navigation Bar,* on page 2-15.
• Check All button • Uncheck All button	• Puts a check in the check box of each result document, selecting it. • Removes checks from check boxes of all result documents, unselecting them.
Print Current Table List	Click to print the Query Results page.
More Options menu	Click More Options to open the menu, and then choose a menu item: • Send All Items – Mails all query results to your mailbox. Each result (whether email message or file) is sent to you as a separate email message. • Export All Items – Exports all query results to a DLD file, which you can import into Outlook if you have the Outlook Interface customer option installed (see *Exporting Query Results,* on page 2-18). • Export Checked Items – Exports the selected query results to a DLD file, which you can import into Outlook if you have the Outlook Interface customer option installed (see *Exporting Query Results,* on page 2-18). Selected results are those with check-marked check boxes. • Send Checked Items – Mails the selected query results (either email messages or files) to your mailbox. Selected results are those with check-marked check boxes. Click Close Options to close the menu.
status information	Information on the query and found documents. Example: Searching Inside => user.hp.com.repository - Entry found => 3 documents - displaying 1 - 3
• Hide • Preview	• Hides the document preview displayed by Preview. • Displays a preview of the selected document. *Note:* To open or save a file that is either an attachment to an email query or the result of a file (document) query, click the attachment or file Download button in the document preview.

Table 2-3: Query Results Page Features (Continued)

Feature	Description
For Each Found Email Document	
check box	Click to toggle. A check mark means the email message is selected. An empty check box means the message is not selected.
	You can send a message to your mailbox by selecting it and then choosing Send Messages to Me in the More Options menu.
From	From field of the message.
Subject	Subject field of the message.
Date	Sent field of the message.
For Each Found File Document	
check box	Click to toggle. A check mark means the file is selected. An empty check box means the file is not selected.
	You can send an email message containing the file as an attachment to your mailbox by selecting the file and then choosing Send Files to Me in the More Options menu. Because you are sending the file to yourself, the email message From field will show your email address.
File Name	Name of the file.
File Size	Size of the file, in bytes.
File Path	Path of the file. The indication [...], if present, means only part of the path is shown.
Date	Time and date the file was last modified.

See Also

Query Results Navigation Bar

Query results are retrieved and displayed in order of increasing age; that is, the most recent documents are returned and displayed first.

Note: Documents archived less than an hour ago may or may not appear in query results. Do not expect them to appear.

Twenty results (maximum) are shown on the Query Results page. You can use the query results navigation bar to display different groups of twenty results.
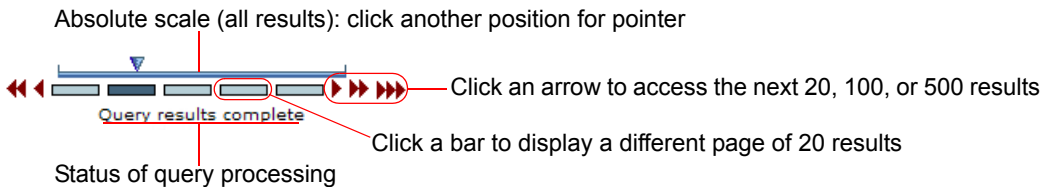
Figure 2-6: Query results navigation bar

The query results navigation bar has the following features:

Table 2-4: Query Results Navigation Bar Features

Feature	Description
bars:	From left to right, the five bars represent subsequent pages of 20 results (maximum). Click a bar to display its page of results. The dark bar represents the currently displayed results.
	Note: To see just which documents a given bar represents, hold the mouse pointer over it momentarily to display a tooltip:
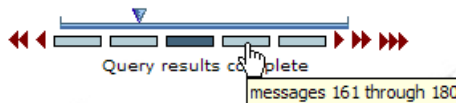
Table 2-4: Query Results Navigation Bar Features (Continued)

Feature	Description
arrows: • ▶ ▶▶ ▶▶▶ • ◀◀◀ ◀◀ ◀	Click an arrow to display a different page of results: • Move the results display forward by 20 (▶), 100 (▶▶), or 500 (▶▶▶) documents. • Move the results display back by 20 (◀), 100 (◀◀), or 500 (◀◀◀). For example, if the current page shows results 1-20, clicking the right double-arrow (▶▶) displays results 101-120. *Note:* For background query results, triple arrows (◀◀◀, ▶▶▶) represent 1000 results (instead of 500), and quadruple arrows (◀◀◀◀, ▶▶▶▶) represent 10,000 results.
absolute scale: ▽	The horizontal bar represents all results of the query, whether 300 or 3,000,000. The pointer indicates which set of 100 results (maximum) is accessible using the navigation bars (▭). You can move the scale pointer to a position you click along the horizontal scale.
status	Text indicating the current status of results retrieval: • Query Still In Progress – Searching is in progress. Less than 20 results have been found so far. • Click Above – Searching is in progress. At least 20 results out of a possible maximum of 500 results have been found and displayed. You can click a navigation bar (▭) to display a set of 20 results while the search is in progress. • Query Results Complete – Searching is complete if the query produces no more than 500 query results. If there are more than 500 results, the search for the first 500 results is complete. To search for additional results with the same query, click the right triple-arrow symbol (▶▶▶). For background query results, Query Results Complete means all results have been retrieved.

Query Results Are Retrieved In Batches Of 500 (Maximum)

For performance reasons, when you submit a query only the first 500 results (maximum) are retrieved. To see more results, you must click the right triple-arrow symbol (▶▶▶). Each batch of 500 results (maximum) corresponds to a separate query process submitted to the RISS Web Interface. For this reason, the status message Query Results Complete means that a complete batch of 500 results (maximum) has been retrieved and the query is done searching for the first 500 results. It does not mean that all query results have been retrieved.

Background queries work differently. When you save query results, the query is resubmitted as a background process that retrieves all results, no matter how many. Use a background query when you need to retrieve a large number of documents.

Exporting Query Results

If you are using the Outlook Interface customer option and have installed the Outlook plug-in, you can use the Export All Items and Export Checked Items options in the More Options menu. You can export the selected or all query results, and then access them in the Outlook Interface.

Note: Before you export query results for the first time, contact your system administrator to assist you. Your system administrator will need to configure the Advanced options before you can export any query results.

If you want to export your query results, do the following:

1. Submit a query or access a previously saved query results, and display the results on the Query Results page.

2. If you want to export specific items from the query results, click the check box next to the item to select it.

3. Click More Options to open the menu.

4. To export the entire query results, click Export All Items from the More Options menu. To export the selected items, click Export Checked Items from the More Options menu. If this is the first time you have exported query results, the File Download dialog box is displayed. Otherwise, the Export Progress dialog box is displayed and you can skip to step 6.
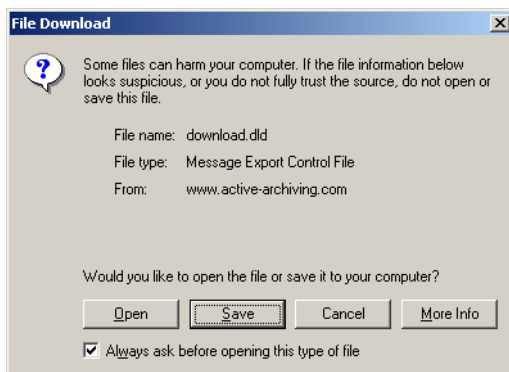
Figure 2-7: File Download dialog box

5. Click the Always ask before opening this type of file check box to unselect it, and then click Open to start the export process. If you unselect the check box, you will no longer have to complete this step in the future. The Export Progress dialog box is displayed.
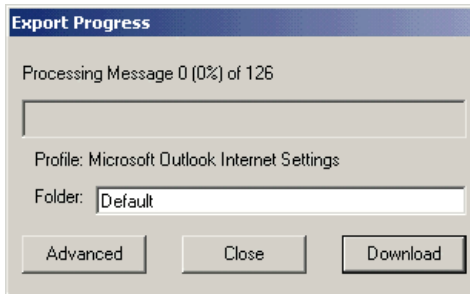
Figure 2-8: Export Progress dialog box

6. The query results will be saved to a folder that you can access in Outlook:

   – Profile displays the name of the default Outlook profile where the results will be saved. This information may be important if you have more than one Outlook profile configured.

   – The Folder field contains the name of the Outlook folder where the result will be saved. The default folder name is Default. To create a new folder, enter a new name in the Folder field.

     Any exported messages you previously exported to the Default folder are deleted unless you create a new folder. If you enter a folder name that already exists, a confirmation dialog box is displayed to verify you want to delete the previously exported query results.

7. If this is the first time you have exported query results, click Advanced. The Advanced Options dialog box is displayed. Otherwise, skip to step 8.
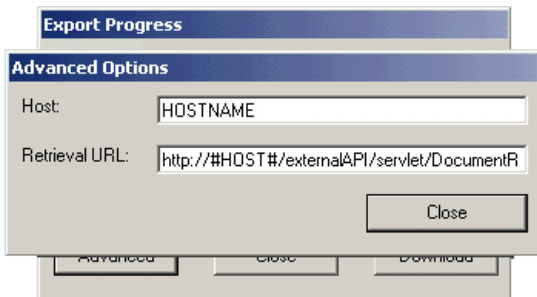
Figure 2-9: Advanced Options dialog box

8. Have your system administrator replace HOSTNAME in the Host field with the host name or IP address for retrieving messages, and then click Close to return to the Export Progress dialog box. You should not modify the Retrieval URL field in the Advanced Options dialog box unless otherwise instructed by your system administrator.

9. To begin the export process, click Download. Clicking Close will quit the export process.

10. A progress bar is displayed while you are downloading the query results. To cancel, click Cancel. When the export process is complete, click Close.
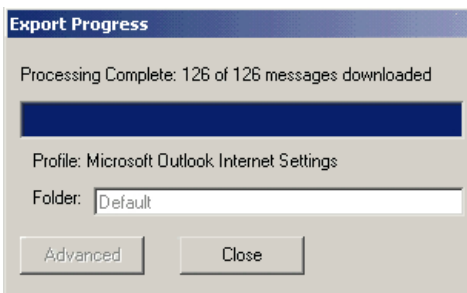
Figure 2-10: Export Progress dialog box, processing completed

11. To verify you have successfully exported the query results, open Outlook. In Outlook, a folder named Persist Search Results is created and contains the Default folder or the folder you created. This folder contains the messages from the exported query results.

You can work with these messages as you would any email message. For instance, you can reply to, forward, or even delete a message. Deleting a

message removes it from your Outlook account, but does not delete it from RISS.

Click to expand or
collapse the Persist
Search Results folder.
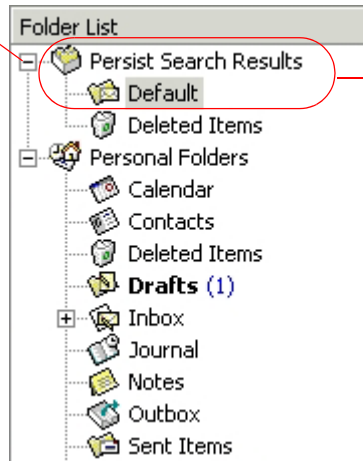
Persist Search Results folder
and Default folder containing
the query results

Figure 2-11: Persist Search Results folder in Microsoft Outlook window

See Also

- Chapter 3, *RISS Outlook Interface*

- *Accessing Saved Results of Background Queries,* on page 2-23

Submitting Background Queries and Saving Results

If you need to retrieve a large number of documents, do the following:

1. Submit your query as usual (in the foreground), but do not bother to wait for any results.

2. Save the query results (regardless of how many results have been returned so far):

    a. Click Query Manager in the toolbar, and then click the Save Results tab. This displays the Save Results panel of the Query Manager page.

    b. Name the saved results using the Save Search Results as field.

    c. Click Save Now.

4. Access the saved results – see .

The Clear button erases any text you have entered in the Save Search Results as field.

Note: Results of background queries are not retrieved in order of age. They are sorted by age after they have all been retrieved (query processing is Finished). This means that if you access the saved results before the query is Finished, the results are not sorted.

When you save query results, your query is in fact resubmitted as a background process that retrieves all results, no matter how many. Because the query runs in the background, you can continue to use the RISS Web Interface (for example, by submitting other queries).

A **background query** is sometimes referred to as an **unbounded query** as opposed to a **bounded** (or **foreground**) query, which you submit normally. Use a background query whenever you need to retrieve a large number of documents. A typical example is an audit query.

Accessing Saved Results of Background Queries

You access the saved results of all background queries on the Display Saved Results panel of the Query Manager page. To access the Display Saved Results panel, click Query Manager in the toolbar and then click the Display Saved Results tab.

Status Information

Query Name:	Status:	Starting Date:	Ending Date:	Reload:	Send Email:
all email	Finished	06 Dec 2002	06 Mar 2003	Reload	Mail all To Me
all files, 3 months	Finished	06 Dec 2002	06 Mar 2003	Reload	Mail all To Me
doc, last month	Finished	06 Feb 2003	06 Mar 2003	Reload	Mail all To Me
doc, last year	Finished	06 Mar 2002	06 Mar 2003	Reload	Mail all To Me

Figure 2-12: Display Saved Results panel, Query Manager page

The Display Saved Results panel has the following features:

Table 2-5: Display Saved Results Panel, Query Manager Page

Feature	Description
Query Name	Name you gave to the saved results with Save Current results (Save Results panel of the Query Manager page).
Status	Current status of the background query: • Unfinished – Not all results have been retrieved yet. If you display the retrieved results they will not be sorted by age. • Finished – All results have been retrieved. If you display results they will be sorted by age. • Finished Interrupted – The background query process was interrupted. All of the displayed results correctly match your query, but the list of results may not be complete. Resubmit your query.
Starting Date	The start date you specified when defining the query. Documents on or after this date will be sought.

Table 2-5: Display Saved Results Panel, Query Manager Page (Continued)

Feature	Description
Ending Date	The end date you specified when defining the query. Documents on or before this date will be sought.
Reload	Click Reload to display the Query Results page for the corresponding saved results.
Send Email	Click Mail all To Me to send each of the saved results (email messages or files) to your mailbox as a separate email message.
	Note: You are not asked to confirm this action. Please be aware that you may potentially be sending yourself a significant number of email messages.

Note: You cannot delete saved query results.

See Also

- *Accessing Query Results,* on page 2-12

Saving Query Definitions

You use the Save Query Criteria panel of the Query Manager page to save the definition (search criteria) of the last query you submitted. You must submit the query before you can save its definition.

To access the Save Query Criteria panel, click Query Manager in the toolbar and then click the Save Query Criteria tab.

The Save Query Criteria panel displays the query definition (Status Information field). You save the definition by giving it a name (Save Query Criteria as field) and clicking Save Now. The Clear button erases any text you have entered in the Save Query Criteria as field.

Accessing Saved Query Definitions

You access the saved definitions (search criteria) of queries on the Display Saved Queries panel of the Query Manager page. To access the Display Saved Queries panel, click Query Manager in the toolbar and then click the Display Saved Queries tab.

Status Information

Name:	Date:	Reload:	Erase:
active-archive, 3 months	3/6/2003	(Reload)	(Erase)
unins* AND "doc mgr"	3/6/2003	(Reload)	(Erase)

Figure 2-13: Display Saved Queries panel, Query Manager page

The Display Saved Queries panel has the following features:

Table 2-6: Display Saved Queries Panel, Query Manager Page

Feature	Description
Name	Name you gave to the saved query definition with Save Query Criteria as (Save Query Criteria panel of the Query Manager page).
Date	The date you saved the query definition.
Reload	Click Reload to display the Advanced Search page, already filled in with the saved query definition. You can then resubmit the query by clicking Search, after modifying the search criteria if appropriate.
Erase	Delete the saved query definition. *Note:* You are not asked to confirm the deletion.

Preferences Page

You access the Preferences page of the RISS Web Interface by clicking
Preferences in the toolbar. You can use the Preferences page to do either of the
following:

- Initialize your RISS Outlook account (if you have this customer option),
  so you can access RISS using Microsoft Outlook. Click the Outlook icon:

   .

- Change your password for accessing the RISS Web Interface. Enter your
  current password (Old Password), enter the New Password twice, and then
  click Submit.

Note: For security reasons, change your password periodically. Change
your password immediately after you log in for the first time.

See Also

- *Web Interface Toolbar,* on page 2-3
- *Logging In to the RISS Web Interface,* on page 2-2

CHAPTER 3

RISS Outlook Interface

This chapter describes the Microsoft Outlook interface to HP StorageWorks Reference Information Storage System (RISS). It explains how to view and work with archived email messages in Outlook, and how to search from within Outlook for email messages archived in RISS.

This chapter contains the following topics:

- Initializing Your RISS Outlook Account, on page 3-2

- RISS Outlook Account User Interface, on page 3-4

- Archived Email Messages, on page 3-5

- Active-Archive Outlook Folder, on page 3-6

- Simple Search Pane, on page 3-7

- Look/Search For Field, on page 3-8

- Advanced Search Pane, on page 3-9

- Query Results, on page 3-12

- Email Message Attachments, on page 3-14

- Problems Logging In, on page 3-15

- Advanced Use of the Outlook Interface, on page 3-16

See Also

- Chapter 1, *RISS Overview*, for fundamental concepts.

- Chapter 5, *Query Syntax and Matching*, for information on the syntax of queries and how queries are matched against email message fields.

Initializing Your RISS Outlook Account

How to Initialize Your RISS Outlook Account

Before you can use the RISS Outlook Interface, your system administrator must install the Outlook plug-in, and then you must initialize your RISS Outlook account. There are two ways to initialize your account:

- Use the RISS Web Interface:

    1. Log in to the RISS Web Interface. See your system administrator for the URL (web address) and login information to use, if necessary.

    2. Click Preferences in the Web Interface toolbar:
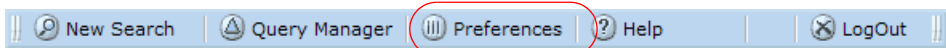
    3. Click the Outlook icon: .

- Use the welcome email message:

    1. Click the link If you would like to use Persist Technologies Unlimited Storage Solution inside Outlook click here.

    2. Log in to the system.

You are notified whether your account initialization succeeded or failed.

See Also

- *What to Do If Initialization Fails,* on page 3-3

- *RISS Outlook Account User Interface,* on page 3-4

- *Archived Email Messages,* on page 3-5

- *Active-Archive Outlook Folder,* on page 3-6

What to Do If Initialization Fails

If your security settings are not correct, initialization of your RISS Outlook account cannot succeed. In that case, change your security settings as follows:

1. Open the Internet Properties dialog box.

   If you use Microsoft Internet Explorer as your web browser, you can do this by choosing Internet Options in the browser Tools menu. Otherwise, you can open the dialog box by choosing Internet Options in the Windows Control Panel (open the Control Panel with Start -> Control Panel).

2. Click the Security tab to display the Security panel of the dialog box.

3. Click Custom Level to display the Security Settings dialog box.

4. In the first dialog box section, 🎯 ActiveX controls and plug-ins, click Enable for the setting Initialize and script ActiveX controls not marked as safe.

5. Scroll down to the section 🗓 Scripting, and then click Enable for the setting Active scripting.

6. Click OK in each dialog box to save the new settings.

7. Try again to initialize your account. If initialization is still not successful, see your system administrator.

RISS Outlook Account User Interface

You can use your RISS Outlook account to display and work with archived messages. You can also use the search tools to locate archived email messages on RISS.

The following table describes the user interface objects in your Outlook account.

Table 3-1: Outlook User Interface Objects

Objects	Description
Stub icon (📧)	The stub icon represents an archived email message. See *Archived Email Messages,* on page 3-5.
Active-Archive Outlook folder	This folder contains the results of a simple or advanced search of your archived email messages. See *Active-Archive Outlook Folder,* on page 3-6.
Persist Search Results folder	This folder contains any query results you may have exported from the Web Interface. For more information about exporting query results, see Chapter 2, *RISS Web Interface*, *Exporting Query Results,* on page 2-18.
Simple Search/ Advanced Search Pane	The simple or advanced search form in Outlook can provide you with up to 50 messages that match your query. See *Simple Search Pane,* on page 3-7 and see *Advanced Search Pane,* on page 3-9.
Search Archive button	To retrieve more than 50 messages, click Search Archive, which opens the RISS Web Interface. The RISS Web Interface can retrieve any number of messages. For more information about the Web Interface, see Chapter 2, *RISS Web Interface*.
Active Options dialog box	This advanced feature is for administrators only and is used to configure your RISS Outlook account. See *Advanced Use of the Outlook Interface,* on page 3-16.

Archived Email Messages

After your system administrator has installed the Outlook plug-in, email messages that are still in your Outlook mailbox that have been archived are represented with a special icon known as a Stub icon ().

Your system administrator can archive email messages based on certain rules to reduce the size of your mailbox. You can work with archived email messages as you would any email message. For instance, you can reply to, forward, or even delete the archived email message. Deleting the archived email message deletes the message from your mailbox, but not from RISS.

To display a message, double-click it to open the email in its own window. You can also view the message from the Outlook preview pane.

To display a message attachment, double-click the message and then open the attachment. You cannot view message attachments through the Outlook preview pane.

Active-Archive Outlook Folder

When you initialize your RISS Outlook account, a special Outlook folder, **Active Archive**, is created.[1] Whenever the Active Archive folder is open, a simple or advanced search form appears at the top of the folder contents pane. You can search for archived email messages with either search form.
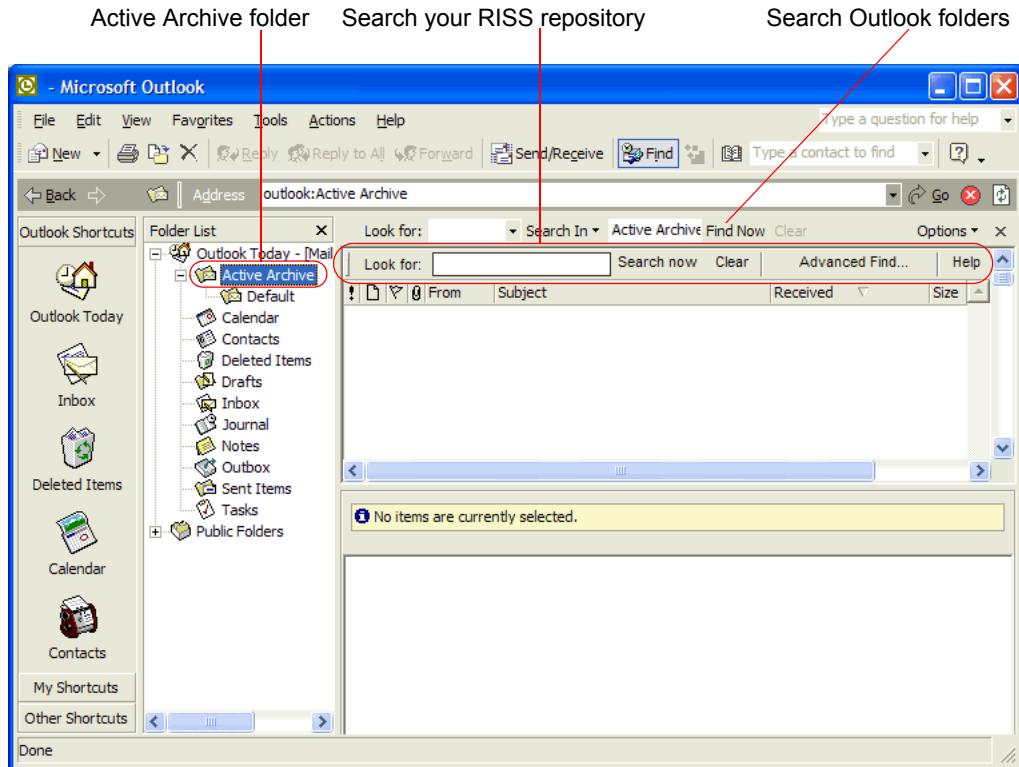
Figure 3-1: Active Archive folder in Microsoft Outlook window

See Also

- *Advanced Search Pane,* on page 3-9
- *Query Results,* on page 3-12

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1. The name of this folder actually depends on your RISS configuration. By default, the name is Active Archive, which is the name used in this documentation.

Simple Search Pane

The Simple Search pane is displayed at the top of your Active Archive folder when the folder is open. If the Advanced Search pane appears there instead, you can click Simple Search mode to switch to the Simple Search pane.

Enter words to find in message bodies   Pick repository to search   Switch to advanced search

Submit query   Display online help

Figure 3-2: Simple Search pane

Similarly, to change to the Advanced Search pane from the Simple Search pane, click Advanced Find.

You can use the Simple Search pane to search for email messages containing words you enter in the Look for field.

Note: In the Look for field, you can enter simple words, words with wild-cards, or a more sophisticated query involving Boolean expressions or word sequences. Considering this flexibility, the Simple Search pane does not really limit you to simple searches! This pane is only simpler than the Advanced Search pane in the sense that there are fewer fields you can search on.

If you have access to more than your own repository, you can also choose the repository to search, from those available to you. A repository is a virtual collection of documents.

When you have finished defining your query, click Search now to start the search.

The Simple Search pane also has a Clear button, which you can click to reset (empty) all the fields on the pane.

See Also

- *Advanced Search Pane,* on page 3-9

Look/Search For Field

Using the Look/Search For Field

The Look for field in the Simple Search pane and the Search for field in the Advanced Search pane function the same. You use these fields for nearly every query you enter, to search email message contents.

In the Look/Search for text field, you enter the words to look for. The query syntax allowed for a text field is described in Chapter 5, *Query Syntax and Matching*. You can enter simple words, words with wildcards, or a more sophisticated query involving Boolean expressions or word sequences.

Usage Note: Make your Look/Search for text as specific as possible, to narrow the search to the messages you want to find. In general, the more information you provide in the Look/Search for field, the narrower the search. If the field is blank (empty), you find all messages that correspond to the other fields.

Query Field Look/Search For Searches Indexed Contents

The Look/Search for query field is checked for a match against the indexed contents of email messages. This applies to the message body and to message attachments that are loose office documents.

The exact set of file types that are considered loose office documents (that is, whose contents are indexed) depends on the RISS configuration. See your system administrator for more information.

See Also

- Chapter 1, *RISS Overview*, for more information on loose office documents.

- Chapter 5, *Query Syntax and Matching*

Advanced Search Pane

You can access the Advanced Search pane of the Active Archive folder at any time by clicking Advanced Find on the Simple Search pane.
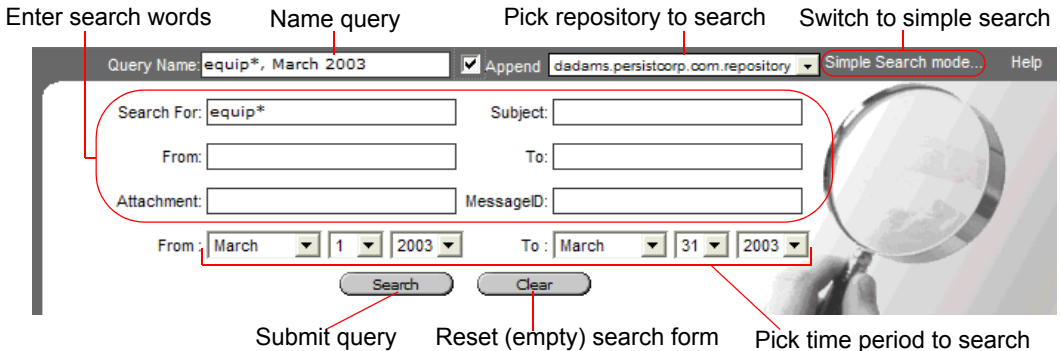
Figure 3-3: Advanced Search pane

Similarly, to change to the Simple Search pane, click Simple Search mode.

All of the Simple Search fields are available on the Advanced Search pane too:

- Search for – What to search for in the email message. (Same as the Look for button on the Simple Search pane.)

- The repository to search (if you have access to more than one).

- Search – Start the search. (Same as the Search now button on the Simple Search pane.)

- Clear – Reset (empty) all the fields on the pane.

You can define a time period to search by specifying the start (From) and end (To) dates (inclusive). For example, to search for email messages dated between March 8, 2003 and March 23, 2003, you would enter a Start value of 03/08/2003 and a To value of 03/23/2003. To search for messages dated the same, use the same date for Start and To.

You can use the Advanced Search pane to search for messages using multiple query fields. The query fields are matched against the corresponding message fields. In addition to the fields of the Simple Search pane, the Advanced Search pane provides the following query fields to help you refine your searches.

Table 3-2: Additional Advanced Search Query Fields

Query Field	Matches (in the Email Message)
Query Name	Name you provide for the results subfolder of your Active Archive folder. If you leave this empty, the name Default is used. Slash characters (/) in the name represent a folder hierarchy change. For example, the query name a/b means to place the query results in subfolder b of folder a (both folders, a and b, are created if they do not already exist).
Append	Click to toggle. A check mark means the folder is not emptied. This appends the result to the existing query results only if the results folder already exists. An empty check box means the results folder is emptied before the query is processed. *Usage Note:* If the results folder already has a subfolder with results you want to keep, turn on the Append option. For example, if you first submit a query with name a/b, and then submit a query with name a, turn on Append if you do not want the results of the first query (folder b) to be lost.
Subject	The Subject message field.
From	The From message field.
To	All message recipients. This includes the To, Cc, Bcc, and Apparently-To message fields.
Attachment	The file name of a message attachment. (The contents of loose office document attachments are searched using the Subject field – see *Query Field Look/Search For Searches Indexed Contents,* on page 3-8.)
Message ID	The Message ID message field, which is a message identification number. Not all messages have Message IDs. You use this field mainly for audit searches. To see the Message ID of a message using Microsoft Outlook: 1. Open the message in its own window by double-clicking it. 2. Choose the View -> Options menu item. This displays the Message Options dialog box. 3. If the message has a Message ID field, this field is shown in the Internet headers field of the Message Options dialog box. Example: Message-ID: <LISTMANAGER-115380-9228-2003.03.04-17.34.24--user#hp.com@lists.FrameUsers.com>.

See Also

- *Simple Search Pane,* on page 3-7
- Chapter 5, *Query Syntax and Matching*

Query Results

The results of a search are placed in a folder directly under your Active Archive folder. You can name this subfolder using the Query Name field of the Advanced Search pane. If you provide no name, the results folder is named Default.

Query results folder   Your Query Parameters message: query definition

Double-click to open or save attachments   Preview of selected message
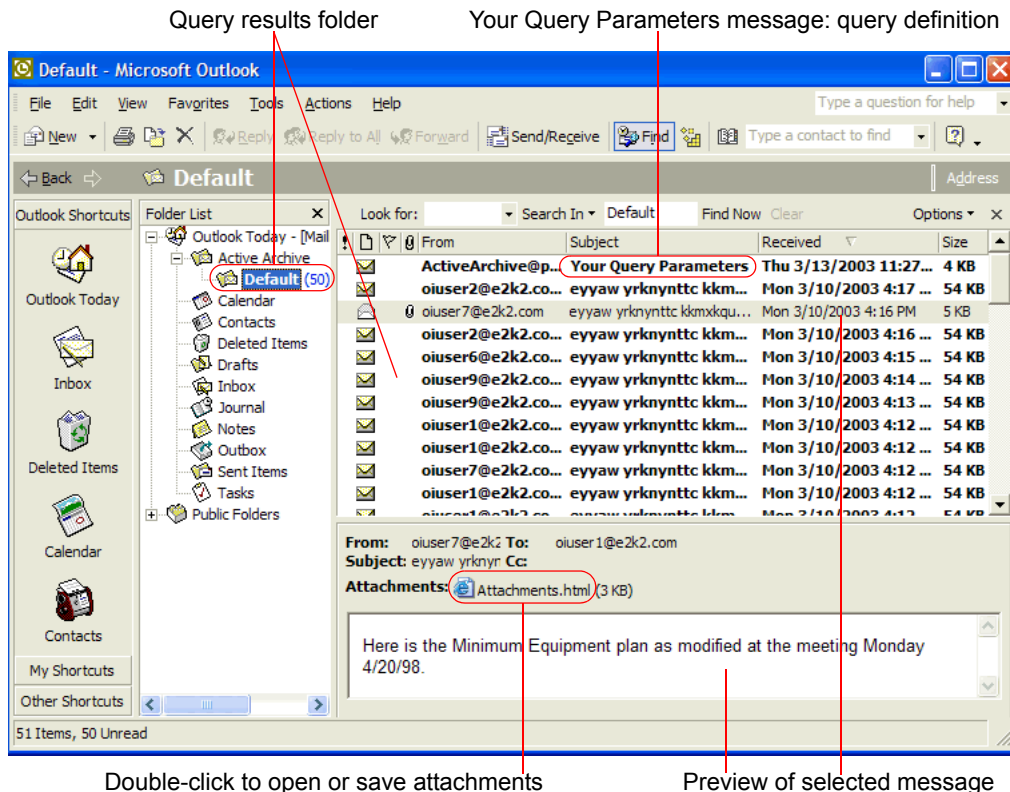
Figure 3-4: Query results folder in Microsoft Outlook window

Note: If you select the Active Archive folder in the Outlook folder list, the contents of the latest results folder are displayed.

The query results folder contains the following messages, which correspond to the last query you submitted:

- Each email message in your repository that matches the query.

- Your Query Parameters – A special message that shows the search criteria you used, the name of your results folder (Query Name of Advanced Search), and the status of your query.

  This message is more recent than the others, so it appears at the top or bottom of the folder if you sort the found messages by date (by clicking the Received heading).
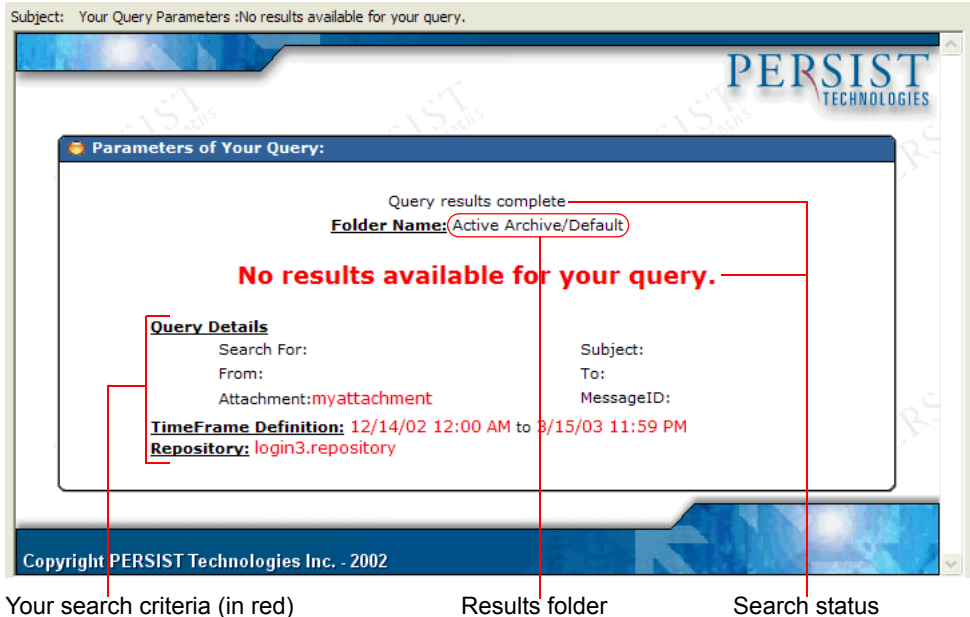
Figure 3-5: Query Parameters message

You can use item Preview Pane in the Outlook View menu to show or hide the Outlook preview pane, which displays the currently selected message.

When more than 50 messages match your query, only the 50 most recent matching messages are retrieved. Messages archived less than an hour ago will most likely not appear in query results. To see additional, earlier results, you must submit another query, specifying an earlier time period.

You can also use the RISS Web Interface to submit a background query that will retrieve any number of messages. To access the Web Interface from the Outlook Interface, click Search Archive. See Chapter 2, *RISS Web Interface* for more information about the Web Interface.

Email Message Attachments

Attachments to email messages can be quite large. For performance reasons, whenever an archived message matching a query is retrieved, all its attachments are replaced with a single attachment, called Attachments.html, which serves as a proxy for the original attachments. The original message is unaffected. The message copy in the query results folder has Attachments.html attached.

The **attachments proxy** is in fact a link to a web page, Attachments Access Page, where you can open or save any of the original message attachments.

How To Open Or Save a Message Attachment

1. Display the email message that has the attachment, either in the Outlook preview pane or in its own window:

   − To display the email in its own window, double-click it.

   − To display the email in the Outlook preview pane, select it. If the Outlook preview pane is not visible, choose Preview Pane in the Outlook View menu to display it.

2. Double-click the attachment Attachments.html in the displayed message. This displays the Opening Mail Attachment dialog box.

3. In the Opening Mail Attachment dialog box, select Open it. This opens the Attachments Access Page in your web browser.

4. In the Attachments list on the Attachments Access Page, select the name of a message attachment, and then click Download. This displays the File Download dialog box.

5. In the File Download dialog box, click Open to open the selected attachment or Save to save it to disk. (If you save the attachment you must specify where to save it in the Save As dialog box.)

6. You can repeat steps 4–5 to open or save other attachments.

7. On the Attachments Access Page web page, click Close. This displays a confirmation dialog box that asks if you want to close the web browser window. Click Yes.

Problems Logging In

If ever you change your Windows password or you change mail servers, the RISS Outlook Interface prompts you to log in when you try to search your repository. Do this by providing your current (new) password and mail server. This updates your account information (password and mail server) for RISS.

Note: The rest of this section provides background, to help you understand why this new login information is needed.

To use the RISS Outlook Interface you must be logged in to both:

- A Microsoft Exchange mail server

- RISS

After you initialize your RISS Outlook account, these login operations are performed automatically. You are not prompted for your user name, password and mail server.

- When you open Microsoft Outlook you are automatically logged in to Exchange.

- When you submit a search query you are automatically logged in to RISS.

Your Windows password is used for logging in to Exchange. When you initialize your RISS Outlook account, your Windows password becomes your password for RISS as well.

To resynchronize your RISS login information with your new Exchange login information, the RISS Outlook Interface prompts you to provide the new information.

See Also

- *Initializing Your RISS Outlook Account,* on page 3-2

Advanced Use of the Outlook Interface

The Outlook Interface includes features for everyday use by everyone, as well as advanced configuration features for administrative users. Only administrative users should use the advanced features. The advanced features are used to configure a RISS Outlook account for the needs of a specific user.

Active Options Panel, Options Dialog Box

Administrators can access all advanced features by choosing the Tools -> Options menu item, and then clicking the Archive Options tab. This displays the Active Options panel of the Options dialog box.
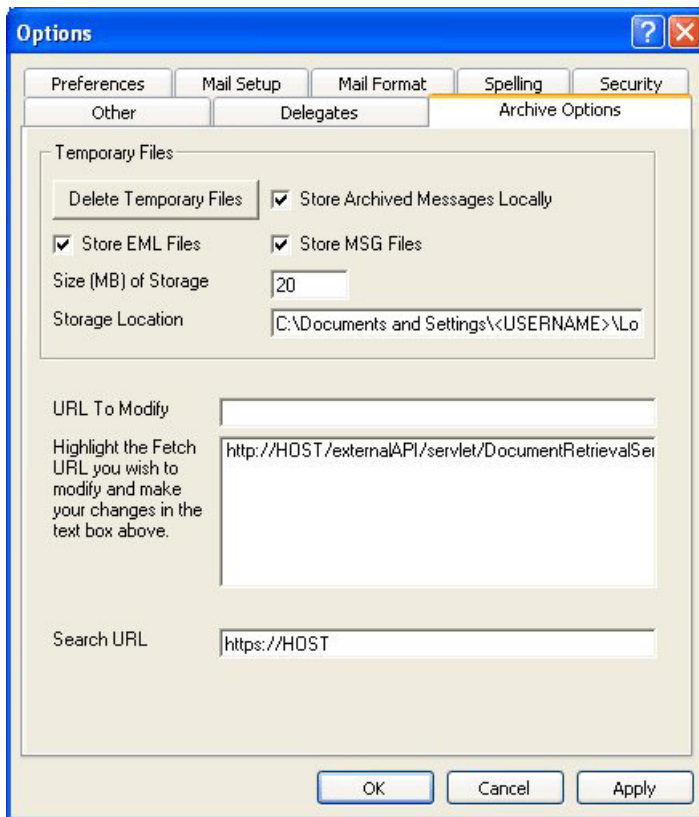
Figure 3-6: Active Options panel, Options dialog box

Administrators should use this panel only when configuring a user's Outlook account. The Active Options panel has the following features:

Table 3-3: **Active Options** Panel Features, Options Dialog Box

Feature	Description
Delete Temporary Files	Click to delete local storage files.
Store Archived Messages Locally	If enabled, files are stored locally in the user's cache and are available for quick access. By default, this option is enabled. If disabled, files are not stored in the user's cache and take longer to retrieve, but this option provides more storage space on the user's computer if space is limited.
Store EML Files	If enabled, EML files are stored in cache. EML files are compressed files that can be retrieved more quickly than MSG files. By default, this option is enabled. This option is applicable only if the Store Archived Messages Locally check box is checked.
Store MSG files	If enabled, MSG files are stored in cache. MSG files are more structured than EML files. By default, this option is enabled. This option is applicable only if the Store Archived Messages Locally check box is checked.
Size (MB) of Storage	The amount of cache used to store the local temporary files. The default is 20 MB. This option is applicable only if the Store Archived Messages Locally check box is checked.
Storage Location	The archived message cache location. Replace <USERNAME> with the user's Windows NT login name. This option is applicable only if the Store Archived Messages Locally check box is checked.
URL to Modify (Fetch URL)	The RISS URL used to retrieve archived messages. Replace HOST with the DNS name associated with the virtual IP web user interface for the system.
Search URL	The internet address of RISS. Replace HOST with the DNS name associated with the virtual IP web user interface for the system.

CHAPTER 4

Document Manager

This chapter explains how to use Document Manager to archive documents in your repository. For system administrators, it explains how to configure Document Manager client.

This chapter contains the following topics:

- Getting Started With Document Manager, on page 4-2

- Understanding Document Manager, on page 4-8

- Document Manager User Interface, on page 4-16

- Advanced Use of Document Manager, on page 4-30

See Also

- Chapter 1, *RISS Overview*, for fundamental concepts.

- Chapter 2, *RISS Web Interface*, for information on how to search your repository for archived documents.

- Chapter 5, *Query Syntax and Matching*, for a detailed description of the search query syntax.

Getting Started With Document Manager

Document Manager is the desktop tool you use to archive documents in your repository, and to search for archived documents. This section explains how to perform common Document Manager tasks, and directs you to additional information on less common tasks.

It is intended as a quick-reference summary. For a better understanding of the features involved, *see also:*

- *Understanding Document Manager,* on page 4-8, for background on Document Manager concepts and features.

- *Document Manager User Interface,* on page 4-16, for details on using the Document Manager user interface.

Document Manager Tasks

Use the following table as a quick reference to get started performing Document Manager tasks.

Table 4-1: Document Manager Tasks

Task	Reference
Search for an archived document	Chapter 2, *RISS Web Interface*
Archive a file	*How To Archive Files,* on page 4-3
Turn on/off automatic archiving	*How To Turn On (Start) or Off (Stop) Automatic Archiving,* on page 4-5
Turn on/off automatic archiving by default	*How To Set the Default Archiving Behavior (On/Off),* on page 4-6
Display the icon My Active-Archive in the Windows tray	*How To Start the Active-Archive Monitor,* on page 4-7
Check the status of a file queued for archiving	*Examining the Archiving Status Of a File In Your Active-Archive Bin,* on page 4-21

Table 4-1: Document Manager Tasks (Continued)

Task	Reference
Remove a file from the archiving queue (Active-Archive Bin)	*Removing a File From the Active-Archive Bin,* on page 4-22
Check Document Manager configuration settings and processing history	*My Active-Archive Properties Dialog Box,* on page 4-24
Check Windows file properties of a file queued for archiving	*Examining Properties Of a File In the Active-Archive Bin,* on page 4-22

How To Archive Files

1. Drag selected files and folders to the My Active-Archive folder (your Active-Archive Bin), and drop them there. (The folder need not be open.)

   The following are then queued for automatic archiving:

   – Files contained in dropped folders

   – Email messages contained in dropped PST files (Microsoft Outlook Personal Folder files)

   – Individual dropped files besides PST files

2. Make sure archiving is turned on – see *How To Turn On (Start) or Off (Stop) Automatic Archiving,* on page 4-5.

   Files remain queued in your Active-Archive bin until you turn archiving on. After archiving is turned on, queued files are automatically processed for archiving.

Note: Archiving saves a copy of a file. The original file is not affected. However, do not delete a file you have queued for archiving, until you are sure that it has been successfully archived. See *Examining the Archiving Status Of a File In Your Active-Archive Bin,* on page 4-21, for information on checking the status of a queued file.

Files in archiving queue   My Active-Archive menu

Mouse pointer during drag operation   Archiving status values

File dropped into folder (added to archiving queue)
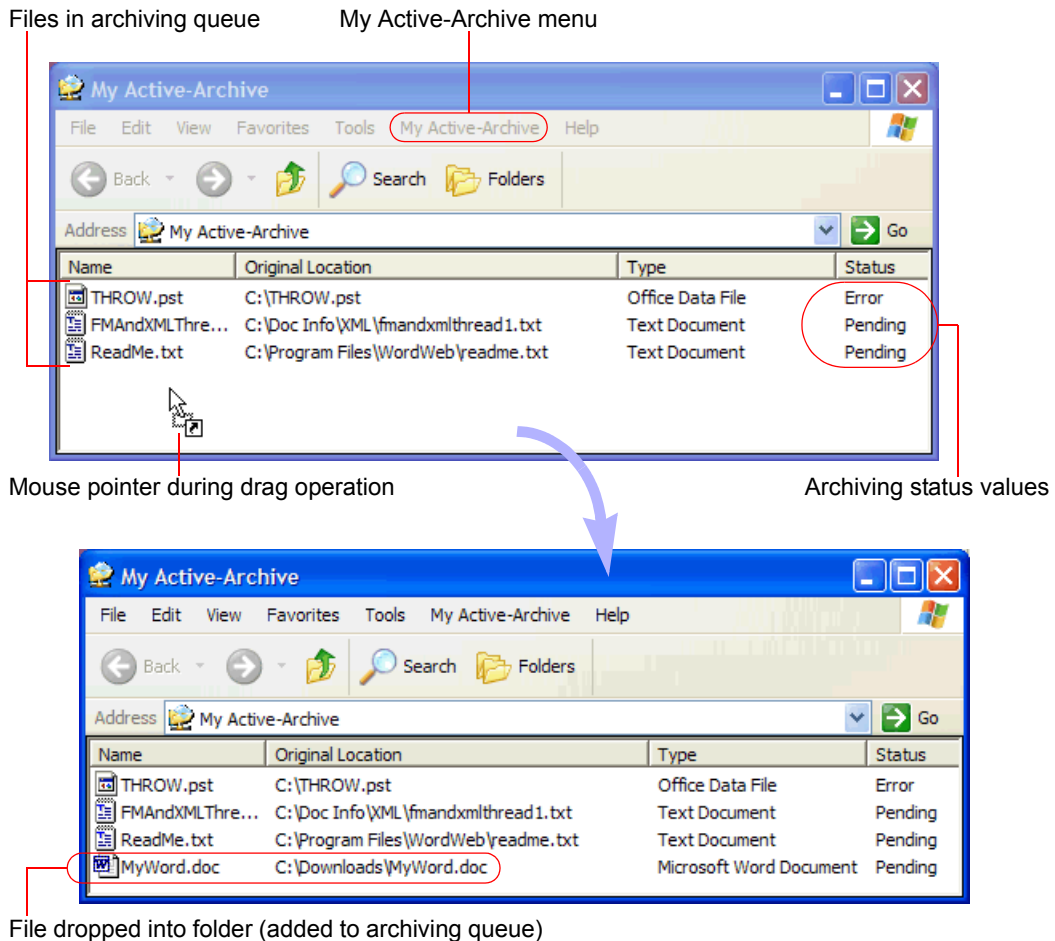
Figure 4-1: Dragging a file to your Active-Archive Bin (My Active-Archive)

See Also

- *My Active-Archive Desktop Icon and Folder,* on page 4-17, for more information on the Active-Archive Bin.

- *Files You Can Archive,* on page 4-10, for restrictions on the files that can be archived.

- *Archive All Email Messages In a PST File,* on page 4-11, for information on archiving the email messages contained in a Personal Folder file.

How To Turn On (Start) or Off (Stop) Automatic Archiving

Do one of the following to start or stop the automatic archiving of files you drop in your Active-Archive Bin:

- Use the Active-Archive Monitor:

  1. Make sure the Active-Archive Monitor is running – see *How To Start the Active-Archive Monitor,* on page 4-7.

  2. Position your mouse over the My Active-Archive icon in the Windows tray: . A tooltip will be displayed, indicating the current status of automatic archiving, Running (archiving is on) or Stopped (archiving is off).

  3. If the current status (see step 2) is not what you want, right-click the My Active-Archive tray icon. Choose Start Archiving or Stop Archiving in the popup menu, as appropriate.

- Use the My Active-Archive Properties dialog box:

  1. Display the My Active-Archive Properties dialog box – see *My Active-Archive Properties Dialog Box,* on page 4-24.

  2. Click the Import Status tab to display the Import Status panel.

  3. Check the current Status (Stopped or Running) of automatic archiving (Process Control). If the Status is not what you want, click Start or Stop, as appropriate. The Status will change accordingly.

Current status of automatic archiving

Start/Stop button
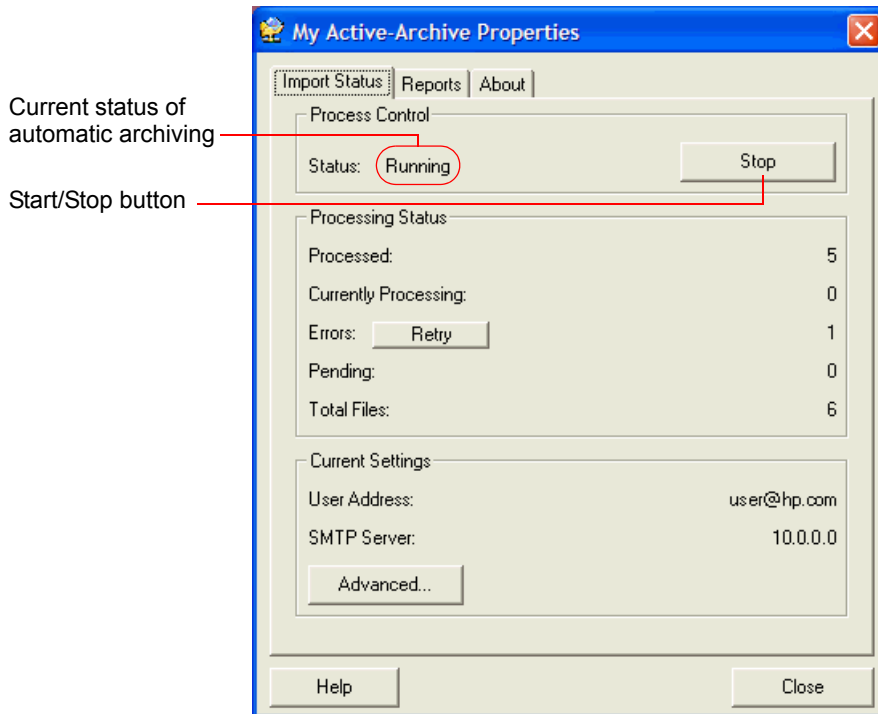
Figure 4-2: Changing automatic archiving status with the Import Status panel

See Also

- *My Active-Archive Tray Icon,* on page 4-22
- *My Active-Archive Properties Dialog Box,* on page 4-24

How To Set the Default Archiving Behavior (On/Off)

After you turn automatic archiving on or off, the status (Running or Stopped) of the Active-Archive monitor remains the same until you explicitly change it. Even if you log off or restart your computer, the most recent status is saved as your preferred setting and restored when you log on again. Thus, turning archiving on or off sets the default behavior of automatic archiving.

Note: Many users prefer to leave archiving on at all times. If you choose
to do this, be aware that automatic archiving can use a signifi-
cant amount of your computer resources.

How To Start the Active-Archive Monitor

Active-Archive Monitor is another name for the My Active-Archive Windows tray

icon: 📋12:24 PM . Below your Windows desktop, at the left, choose Start -> All

Programs -> PERSIST -> Active-Archive Monitor.

- If the Active-Archive Monitor was already started, the My Active-Archive
  Properties dialog box is displayed (see *My Active-Archive Properties Dialog
  Box,* on page 4-24). Dismiss it by clicking Close.

- Otherwise, the Active-Archive Monitor is started when you choose Active-
  Archive Monitor. The My Active-Archive icon is added to the Windows tray.

Note: If you cannot find PERSIST -> Active-Archive Monitor in the Windows
Start menu, Document Manager might not be installed – see
Installing and Uninstalling Document Manager, on page 4-13. If it
is installed but the menu item is not present, see your system
administrator for help restoring the PERSIST menu.

See Also

- *My Active-Archive Tray Icon,* on page 4-22

Understanding Document Manager

Document Manager is the desktop tool you use to archive documents in your repository, and to search for archived documents.

Document Manager includes features for everyday use by everyone, as well as advanced configuration features for administrative users only. This section provides an understanding of the features used by all users.

See Also

- *Getting Started With Document Manager,* on page 4-2, for information on how to perform common Document Manager tasks.

- *Document Manager User Interface,* on page 4-16, for a detailed description of the user interface.

- *Advanced Use of Document Manager,* on page 4-30, for information on advanced features for system administrators.

Document Manager, Definitions

RISS automatically archives, in your individual repository, all email messages associated with your email account; that is, all messages you send or receive.

In addition to this automatic archiving of email messages, you can use **Document Manager** to manually archive any files you want, placing them in your repository along with your messages. You can also use Document Manager to archive the email messages contained in Microsoft Outlook PST files.

When you search for a document, your query is checked against an index of words that is added to each time a document is archived. For a file, the index always includes at least the external identifying information of the file, such as the file name and last modification date. This is true for all files, regardless of file type.

Although you can use Document Manager to archive any type of file, RISS only indexes the contents of email messages and loose office documents. The contents of other files are not indexed (only their external identifying information is indexed).

The exact set of file types that are considered loose office documents (that is, whose contents are indexed) depends on the RISS configuration. If Document Manager does not recognize a file you queue for archiving as a loose office document, it warns you that the file contents might not be indexed.

See Also

- Chapter 1, *RISS Overview*, for more information on the concepts of archiving and indexing, including fundamental definitions.

- Chapter 5, *Query Syntax and Matching*, for details on which document contents are indexed.

What You Can Do With Document Manager

You can use Document Manager to queue files for automatic archiving, examine the status of queued files, remove files from the archiving queue, start and stop automatic archiving, and search your repository for email messages or files that were archived. This section provides background on these operations.

See Also

- *Getting Started With Document Manager,* on page 4-2, for information on how to perform common Document Manager tasks.

Queue Files For Archiving

You interact with the Document Manager application mainly through the Active-Archive Bin located on your Microsoft Windows desktop. This is a desktop icon and folder that functions much like your Windows Recycle Bin. You drag folders and files to your Active-Archive Bin and drop them there.

However, whereas dragging files to your Recycle Bin queues them for deletion, dragging files to your Active-Archive Bin queues them for archiving. You can examine the contents of your Active-Archive Bin at any time. The files you see there are those you queued for archiving.

Note: Archiving saves a copy of a file. The original file is not affected. However, do not delete a file you have queued for archiving, until you are sure that it has been successfully archived. See *Examining the Archiving Status Of a File In Your Active-Archive Bin,* on

, for information on checking the status of a queued file.

See Also

- *How To Archive Files,* on page 4-3

- *My Active-Archive Desktop Icon and Folder,* on page 4-17

Files You Can Archive

You can queue for archiving only files that have all of the following properties:

- The file is of an appropriate type, as defined by your particular RISS configuration.

- The file is old enough, as defined by your particular RISS configuration. The last-modified date is used to measure file age.

- The same file is not already in the archive queue, and it has not been archived previously. For two files to be considered the same, they must:

  – Have the same filename

  – Be in the same location

  – Have the same last-modified date

  This means that a copy of a file with a different name, or with the same name in a different folder, or with a different date is not considered the same file.

If you try to queue a file for archiving that is too young, is of an inappropriate type, is already in the archive queue, or has already been archived, you are notified that you cannot do so.
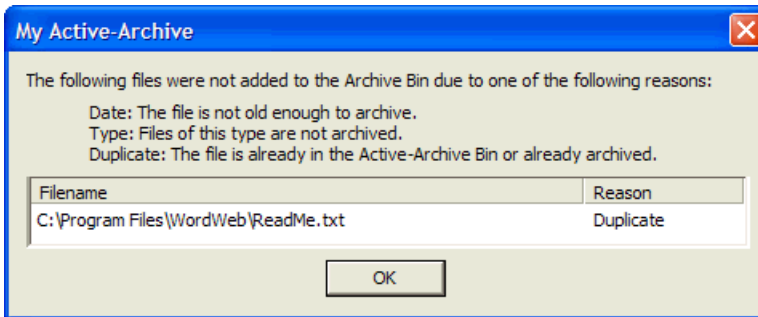
Figure 4-3: Warning dialog box: file is too young, of bad type, or already queued

Archive All Email Messages In a PST File

A **PST file** is a Microsoft Outlook Personal Folder file and has the extension
.pst. A PST file can contain multiple Outlook documents of several types,
including Outlook tasks, Outlook contacts, and email messages. Using
Outlook, you can create a PST file by exporting an Outlook folder, such as a
mailbox. (Refer to the Microsoft Outlook documentation for information on
exporting a folder to a PST file.)

Depending on your RISS and Document Manager configuration, PST files are
treated specially when they are archived. Instead of archiving the PST file
itself, the individual email messages contained in the file are each archived
separately. You can then search your repository for, and retrieve, any of these
messages individually.

Only the email messages in a PST file are archived. All other documents in the
file (such as Outlook contacts and Outlook tasks) are ignored by Document
Manager.

Note: Do not archive a PST file that you have archived previously.
Otherwise, duplicate messages will be created in the archive.

See Also

- *Application Settings Panel Features, Advanced Client Configuration Settings
  Dialog Box,* on page 4-38, for configuring the way PST files are processed
  for archiving (system administrators only).

Start or Stop Automatic Archiving

Just as the Windows Recycle Bin acts as a staging area for files that will be deleted, the Active-Archive Bin acts as a staging area for files that will be archived. You can start and stop the automatic archiving of queued files.

After you start (enable) archiving, the contents queued in the Active-Archive Bin are automatically archived. After a file is archived, it is marked Completed, and then removed from the Active-Archive Bin queue.

After you stop (disable) archiving, any queued files remain queued, without being archived (until you start archiving again).

See Also

- *How To Turn On (Start) or Off (Stop) Automatic Archiving,* on page 4-5

Examine or Remove Files Queued For Archiving

You can examine the queue status of selected files in your Active-Archive Bin to see if they have been archived correctly, are still waiting to be archived, or could not be archived because of errors.

You can examine the standard Windows properties of selected files in your Active-Archive Bin: file location, size, security information, and so on.

You can remove selected files from the archiving queue.

See Also

- *Operations On Files Queued For Archiving,* on page 4-20

Search For Documents

From your Active-Archive Bin, you can search your repository (and any other repositories to which you have been given access). You can search either your email messages or the files you have archived using Document Manager. For information on how to search for archived documents, see Chapter 2, *RISS Web Interface*.

Installing and Uninstalling Document Manager

Installing

Document Manager runs on Microsoft Windows platforms. You install it on your desktop computer using either an installation CD–ROM or an installation program located on your network. See your system administrator for more information.

In either case, an installation wizard guides you through the installation steps. You will need to choose the destination folder for the Document Manager program (the default value is `C:\Program Files\Persist\Document Manager\`).

You must also provide your email address and connection settings. By default, the Use the currently logged on user for establishing connection settings check box is enabled. Leave this enabled, unless you will be archiving documents to a network domain that is different from the one you use when logging on to Windows.

If you do need to use a different domain, you must supply your Windows Logon User Name, Windows Logon Domain, and PERSIST Host Address (which is the address of the RISS SMTP server). Ask your system administrator for this information.

Uninstalling

If necessary, you can uninstall Document Manager using the Microsoft Windows Add or Remove Programs feature in the Windows Control Panel. Choose PERSIST Document Manager in the list of installed programs, and then click Change/Remove and follow the displayed instructions to confirm removal. If you are unfamiliar with uninstalling programs, ask your system administrator for assistance.

What To Do In Case of Abnormal Termination

This section contains information on what to do in case of an abnormal termination of the Document Manager application. This exceptional situation can arise if one or more of the following occurs:

Your machine loses power

- Your machine restarts following an abnormal shutdown

- You end the Document Manager application by clicking End Task in Microsoft Windows Task Manager

Whenever Document Manager restarts after an abnormal termination, it reprocesses any documents that were being processed for archiving at the time of failure. This reprocessing ensures that these documents are archived, but it also implies the possibility that some documents will be archived twice (those whose archiving was in fact completed by the system). Duplicate archived documents present no problem, other than your seeing the same document returned twice in search results.

If Document Manager is terminated abnormally and then restarted, check to ensure that automatic archiving is started or stopped as you intend (see *How To Turn On (Start) or Off (Stop) Automatic Archiving*, on page 4-5). Abnormal termination can change the setting.

There is nothing else you need to do after an abnormal termination, unless both of the following are true:

- You added one or more PST files to the archiving queue.

- Document Manager is configured to archive the email messages contained in a queued Microsoft Outlook Personal Folder (PST) file.

If both of these conditions are true, then abnormal termination of Document Manager can cause additional folders to be added to your Outlook folders list. It does not matter whether you had Outlook open at the time of abnormal termination. Document Manager always uses Outlook (without visibly opening it) to process the email messages contained in PST files.

When Document Manager processes a PST file for archiving, the contents are temporarily opened as a new message folder in your list of Outlook folders. You name the corresponding Outlook folder when you create a PST file (the name is "Personal Folders" by default). For example, if you enter "Project" in

the Name field of the Create Microsoft Personal Folders dialog box when you create a PST file, and you later queue this file for archiving, then the folder Project is opened in Outlook when the PST file is processed by Document Manager.

Document Manager closes the temporary PST message folder after it processes all of the folder messages. However, if the application terminates abnormally this closure may not take place. In that case, you can close the folder yourself, as follows:

1. Select the folder name in the Outlook folder list.

2. Right-click and choose Close *<folder_name>* in the popup menu.

Note: Closing an Outlook folder does not delete the associated PST file. You can reopen the PST file in an Outlook folder by using the Outlook menu File -> Open (item Personal Folder File or Outlook Data File, depending on your version of Outlook). However, refrain from using an archived PST file as an Outlook folder. Otherwise, you may be tempted to archive the PST file again, which will create duplicate email messages in the archive.

See Also

- *Archive All Email Messages In a PST File,* on page 4-11

- Application Settings *Panel Features, Advanced Client Configuration Settings Dialog Box,* on page 4-38 (system administrators only)

Document Manager User Interface

Document Manager includes features for everyday use by everyone, as well as advanced configuration features for administrative users only. This section describes the user interface features used by all users.

See Also

- *Understanding Document Manager,* on page 4-8, for background on Document Manager concepts and features.

- *Advanced Use of Document Manager,* on page 4-30, for information on the user interface features for system administrators.

Document Manager User Interface Objects

When you install Document Manager, the following are added to your Microsoft Windows environment:

Table 4-2: Document Manager User Interface Objects

What	Where
My Active-Archive desktop icon and folder	Windows desktop. See *My Active-Archive Desktop Icon and Folder,* on page 4-17.
My Active-Archive menu	Windows Explorer menu bar. See *My Active-Archive Menu in Windows Explorer,* on page 4-19.
Help For My Active-Archive menu item, Help menu	Windows Explorer menu bar Help menu. See *Help For My Active-Archive Menu Item in Windows Explorer,* on page 4-20.
My Active-Archive tray icon[a]	Windows tray (by default, this is to the right of the task bar near the date display, below the desktop). See *My Active-Archive Tray Icon,* on page 4-22.
PERSIST -> Active-Archive Monitor menu item[b]	Windows Start -> All Programs menu. See *PERSIST Submenu Of Start -> All Programs Menu,* on page 4-23.

a. If the tray icon has been closed (using its Exit menu item) then it will not be present in the tray. To restore it, see *PERSIST Submenu Of Start -> All Programs Menu,* on page 4-23.

b. If the Active-Archive Monitor menu item or the PERSIST submenu is not present, see your system administrator for help restoring them.

My Active-Archive Desktop Icon and Folder

Your **Active-Archive Bin** is a special Microsoft Windows folder, named My Active-Archive. The bin acts as a staging area for documents you queue for archiving. It functions much like your Windows Recycle Bin. You drag and drop files and folders there. The dropped files and the files in the dropped folders are queued for archiving.

The My Active-Archive folder is located on your Windows desktop (that is, in your Windows Desktop folder). It appears as a folder icon on your desktop and in Windows Explorer.

Active-Archive Bin
icon on desktop

My Active-Archive folder
icon in Desktop folder
(Windows Explorer)
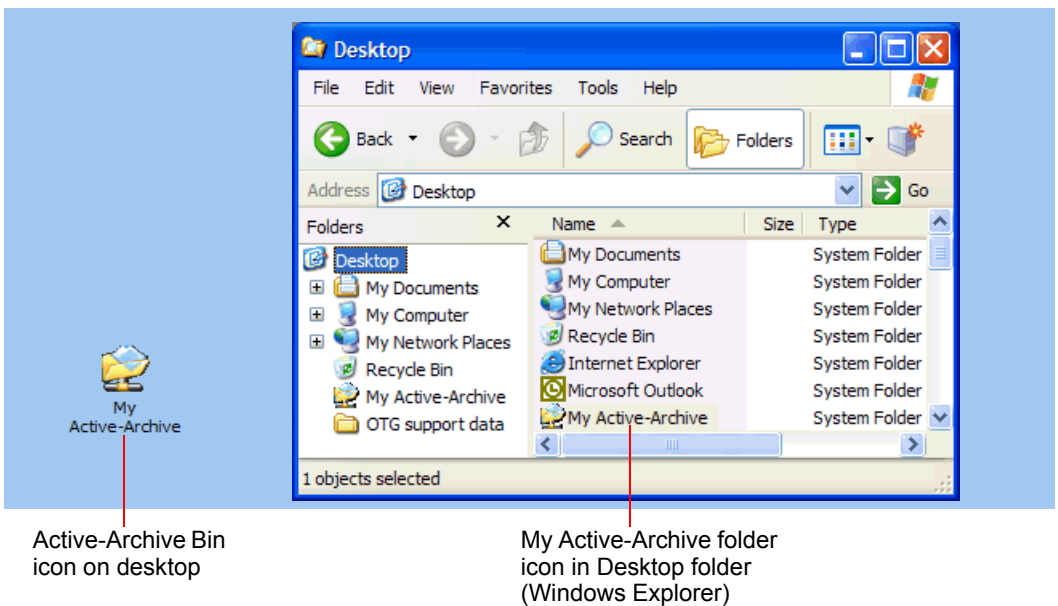
Figure 4-4: My Active-Archive desktop icon and folder

Right-click the My Active-Archive folder icon (on your desktop or in Windows Explorer) to display the following popup menu:

Table 4-3: Popup Menu, My Active-Archive Folder Icon

Menu Item	Description
Open, Explore	Opens the My Active-Archive folder, so you can access the bin contents using Windows Explorer. See *Operations On Files Queued For Archiving,* on page 4-20.
Search Archive	Opens your web browser to the HP StorageWorks Reference Information Storage System (RISS) Web Interface, where you can search for documents (email messages or files) in your repository. See Chapter 2, *RISS Web Interface*. Same as Search in My Active-Archive menu of Windows Explorer.
Properties	Displays the My Active-Archive Properties dialog box. See *My Active-Archive Properties Dialog Box,* on page 4-24. Same as Properties in My Active-Archive menu of Windows Explorer, and Properties in popup menu of My Active-Archive Windows tray icon.
Create Shortcut	Creates a shortcut to the My Active-Archive folder on your desktop. You can use the shortcut the same way you use the original folder. You can also move the shortcut to another location.

Usage Notes

- Save time – You can also open the My Active-Archive folder by double-clicking the folder icon on your desktop.

- You can copy a desktop shortcut to your Windows Quick Launch bar (below your desktop, by default) by dragging it there. The advantage of a quick-launch shortcut is that it is always visible.

My Active-Archive Menu in Windows Explorer
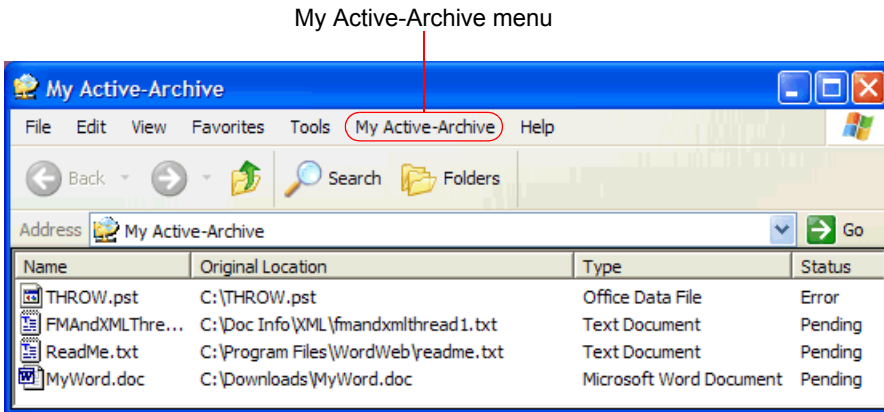
My Active-Archive menu

Figure 4-5: My Active-Archive menu, Windows Explorer

Whenever the My Active-Archive folder is open in Windows Explorer, the My Active-Archive menu is added to the Explorer menu bar, with the following menu items:

Table 4-4: My Active-Archive Menu, Windows Explorer

Menu Item	Description
Search	Opens your web browser to the RISS Web Interface, where you can search for documents (email messages or files) in your repository. See Chapter 2, *RISS Web Interface*.
	Same as Search Archive in popup menu of My Active-Archive icon.
Properties	Displays the My Active-Archive Properties dialog box. See *My Active-Archive Properties Dialog Box*, on page 4-24.
	Same as Properties in popup menu of My Active-Archive folder icon, and Properties in popup menu of My Active-Archive Windows tray icon.

Help For My Active-Archive Menu Item in Windows Explorer

Whenever the My Active-Archive folder (your Active-Archive Bin) is open in Windows Explorer, the Help For My Active-Archive menu item is added to the Explorer menu bar Help menu. This menu item displays online help for Document Manager.
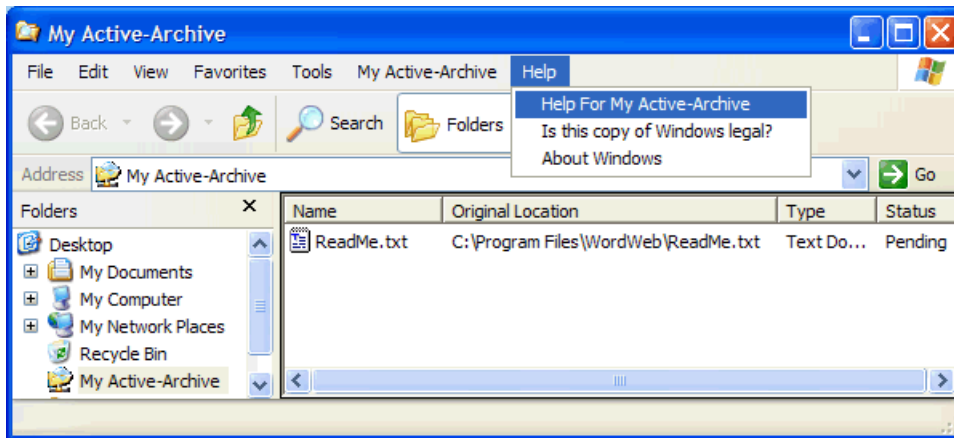
Figure 4-6: Help For My Active-Archive menu, Windows Explorer

Usage Note

- Another way to access the Document Manager online help is to choose Help in the My Active-Archive tray icon popup menu.

Operations On Files Queued For Archiving

The files you drag to your Active-Archive Bin are queued for automatic archiving. When the bin folder (My Active-Archive) is open in Windows Explorer, you can perform operations on selected files in the bin. See *My Active-Archive Desktop Icon and Folder,* on page 4-17, for information on opening the bin in Windows Explorer.

Examining the Archiving Status Of a File In Your Active-Archive Bin

The archiving Status of a file is displayed next to the filename in your Active-Archive Bin. These are the possible Status values:

Table 4-5: File Archive Status Values

Status Value	Description
Pending	The file is queued to be archived. It has not yet been archived.
Processing	The file is currently being archived.
Completed	The file has been archived.
	The file remains listed, with Completed status, until the Active-Archive Bin is refreshed. This is done automatically, and usually takes only a few seconds for a given file. You can refresh the bin contents manually, if necessary, by closing and then reopening the bin in Windows Explorer.
	After the bin display is refreshed, files that were archived less than two minutes earlier are still listed, with Completed status. Files that were archived at least two minutes earlier are no longer listed.
Error	An error occurred during an attempt to archive the file.
	When you see the Error status value, refer to the My Active-Archive Properties dialog box, panels Reports and Import Status – see *My Active-Archive Properties Dialog Box,* on page 4-24:
	1. Examine the error report to determine the cause of the error. Choose Error Files, and then click Generate Report on the Reports panel.
	2. Reset the status of all files with Error status to Pending status. Click Retry on the Import Status panel. Another attempt will be made to archive the error files.
	To remove a file with Error status from the bin, you must first Stop Archiving (see *How To Turn On (Start) or Off (Stop) Automatic Archiving,* on page 4-5), Retry (to reset the Status to Pending), and then Remove the file – see *Removing a File From the Active-Archive Bin,* on page 4-22.

Removing a File From the Active-Archive Bin

You can remove a queued file with status Pending from the archiving queue by right-clicking it and choosing Remove in the popup menu. Alternatively, you can select it, and then press Delete.

Note: When you choose the Remove menu item or press Delete, you are not asked to confirm removal. If you change your mind after removing a file, add it to the archiving queue again (by dragging).
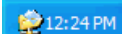

You cannot remove a queued file with status other than Pending (but a system administrator can – see *Configure Data Panel, Advanced Client Configuration Settings Dialog Box,* on page 4-40). You cannot drag a file out of the Active-Archive Bin.

Removing a file from the Active-Archive Bin, like queuing a file there, has no effect on the original file. Also, if a file was previously archived (by anyone), removing it from your archiving queue does not remove it from any repositories where it has been archived.

Examining Properties Of a File In the Active-Archive Bin

You can examine Windows file properties of a file in your Active-Archive Bin by right-clicking it and choosing Properties in the popup menu. These are the same file properties you see by right-clicking a file elsewhere in Windows Explorer and choosing Properties in the popup menu. They include General information about the file location, size, attributes, and dates; Security information about access privileges; and Summary information such as the document Title, Subject, Author, and Comments. The Properties dialog box varies, depending on your Windows version and configuration. For more information, refer to the pertinent Windows documentation.

My Active-Archive Tray Icon

You can use the My Active-Archive icon in the Windows tray to start and stop automatic archiving, and to examine Document Manager configuration settings. By default, the Windows **tray** is to the right of the Windows task bar near the time display, below the desktop: .

Right-click the My Active-Archive tray icon to display the following popup menu:

Table 4-6: Popup Menu, My Active-Archive Tray Icon

Menu Item	Description
Start Archiving Stop Archiving	Starts or stops automatic archiving. After archiving has been started, files queued in your Active-Archive Bin are automatically processed for archiving.
Properties	Displays the My Active-Archive Properties dialog box. See *My Active-Archive Properties Dialog Box,* on page 4-24. Same as Properties in popup menu of My Active-Archive folder icon, and Properties in My Active-Archive menu of Windows Explorer.
Help	Displays online help for Document Manager. Same as Help For My Active-Archive item in Windows Explorer Help menu.
Exit	Removes the My Active-Archive icon from the Windows tray.

Usage Note

- Save time – You can also display the My Active-Archive Properties dialog box by clicking the My Active-Archive tray icon.

PERSIST Submenu Of Start -> All Programs Menu

You can access the PERSIST submenu by going to the Start -> All Programs menu, which is in the lower left corner of your Windows desktop.

Figure 4-7: PERSIST submenu

The PERSIST submenu has the following items:

Table 4-7: Start -> All Programs -> PERSIST Menu

Menu Item	Description
Active-Archive Monitor	If the My Active-Archive icon is not present in the Windows tray, adds it to the tray. If the tray icon is present, displays the My Active-Archive Properties dialog box – see *My Active-Archive Properties Dialog Box*, on page 4-24.
Configuration Check	Displays the PST Importer Integrity Check dialog box, used to diagnose installation problems. For advanced use only, by system administrators.

My Active-Archive Properties Dialog Box

You use the My Active-Archive Properties dialog box to perform the following tasks:

Table 4-8: My Active-Archive Properties Dialog Box Tasks

Task	Reference
Turn on and off automatic archiving of queued files.	*How To Turn On (Start) or Off (Stop) Automatic Archiving*, on page 4-5
Examine general configuration settings and the status of archiving queue processing.	*Import Status Panel Features, My Active-Archive Properties Dialog Box*, on page 4-29
Generate reports on files you have queued for archiving.	*My Active-Archive Properties Dialog Box Panels*, on page 4-25
View the identification of the current Document Manager version.	*My Active-Archive Properties Dialog Box Panels*, on page 4-25
Configure Document Manager or examine configuration settings – for system administrators only.	*Advanced Use of Document Manager*, on page 4-30

You can display the My Active-Archive Properties dialog box in any of the following ways:

- Click the My Active-Archive icon in the Windows tray.

- Choose Properties in the popup menu of the My Active-Archive tray icon or folder icon.

- Choose Properties in the My Active-Archive menu of Windows Explorer.

- Choose Start -> PERSIST -> Active-Archive Monitor (at the lower left of your desktop), provided automatic archiving is turned on.

The My Active-Archive Properties dialog box has the following tabbed panels:

Table 4-9: My Active-Archive Properties Dialog Box Panels

Panel	Description
Import Status	Document Manager configuration settings and archiving status. See *Import Status Panel Features, My Active-Archive Properties Dialog Box,* on page 4-29.
Reports	Lets you generate reports on the files you have queued for archiving since Document Manager was installed on your desktop computer.
	Choose the type of report, and then click Generate Report:
	• Archived Files – Files that were successfully archived.
	• Files Still in Queue – Files remaining to be archived.
	• Error Files – Files that Document Manager has tried to archive, but has not been able to archive successfully because of internal errors.
	• All Files – All files that you have queued for archiving.
	Each report is an HTML file and is displayed in your web browser. See *Document Manager Report Contents,* on page 4-27, for an explanation of the contents of each type of report.
About	Identification of the current Document Manager version.

Reports On Files You Queued For Archiving

Figure 4-8: Generated report example

The contents of the reports generated using the Reports panel of the My Active-Archive dialog box are described in .

Each row in a report describes an individual file that you queued for archiving. Unless mentioned otherwise, a given column described in the table is common to all report types. A blank (empty) entry in any column means Document Manager has not yet tried to submit the given file to the system for archiving, or was unable to properly access the file for processing.

Table 4-10: Document Manager Report Contents

Column	Description
Percent Complete	The percentage of documents contained in the given PST file that were processed by Document Manager. All PST file component document types are included here: email messages, Outlook contacts, Outlook tasks, and so on. *Note:* Although this percentage refers to all documents in a PST file, only the email messages can be archived. Pertains mainly to PST files – see *Archive All Email Messages In a PST File,* on page 4-11. For a non-PST file this is either 0% (file not processed at all) or 100% (file completely processed).
Filename	Name of the file, including the complete path.
Last Modified	Date the file was last changed in some way. Not available for the Archived Files report.
Archive Date	Date the file was archived. Available only for the Archived Files report.
Status	Information about the status of processing the file for archiving. In case an error occurred, this can include the reason for the error. *Note:* If this field is blank (empty), then the fields Documents Archived, Documents Rejected, and Elapsed Time (seconds) are not relevant.
Documents Archived	Number of email messages in the PST file that were successfully submitted to the system for archiving. Normally, this means these messages were all successfully archived by RISS. Pertains mainly to PST files – see *Archive All Email Messages In a PST File,* on page 4-11. For a non-PST file this is either 0 (file not archived) or 1 (file archived). Relevant only if Status is not blank.
Documents Rejected	Number of email messages in the PST file that were not successfully submitted to the system for archiving. These messages were not archived. Pertains mainly to PST files – see *Archive All Email Messages In a PST File,* on page 4-11. For a non-PST file this is either 1 (file not archived) or 0 (file archived). Relevant only if Status is not blank.

Table 4-10: Document Manager Report Contents (Continued)

Column	Description
Elapsed Time (seconds)	Number of seconds Document Manager spent processing the file. Does not include time the file spent in the queue waiting to be processed.
	Relevant only if Status is not blank (empty).

Import Status Panel, My Active-Archive Dialog Box
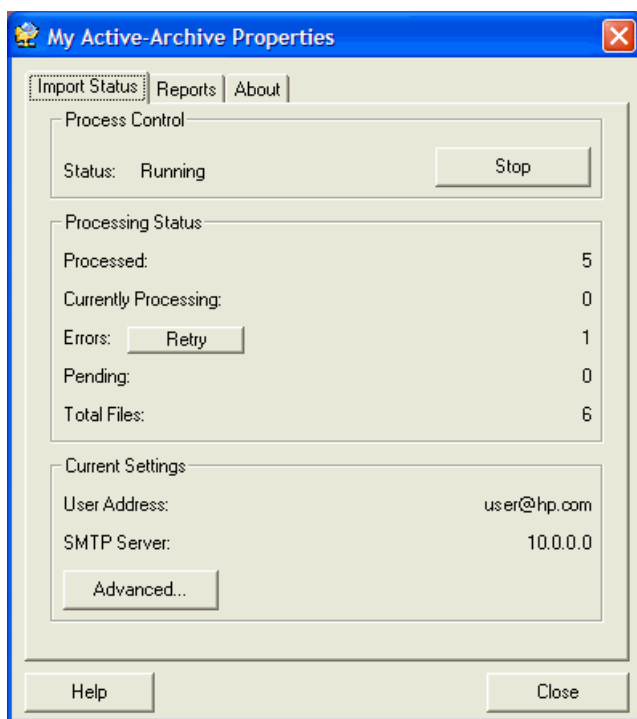
Figure 4-9: Import Status panel, My Active-Archive Properties dialog box

The Import Status panel of the My Active-Archive dialog box has the following features:

Table 4-11: **Import Status** Panel Features, My Active-Archive Properties Dialog Box

Feature	Description
Process Control	• Status – Current status of archiving: Stopped or Running. Same as tooltip displayed with mouse over My Active-Archive tray icon.
	• Start or Stop button – Changes the current Status by starting or stopping automatic archiving (see *How To Turn On (Start) or Off (Stop) Automatic Archiving,* on page 4-5). Same as Start Archiving or Stop Archiving in popup menu of My Active-Archive tray icon.
Processing Status	• Processed – Number of files processed since Document Manager was installed on your desktop computer. Processed files were treated as candidates for archiving. They were not necessarily archived.
	• Currently Processing – Number of files currently being processed for archiving.
	• Errors – Number of files that could not be processed because of an error, ever since Document Manager was installed on your desktop computer. Click Retry to reset the status of all files with Error status to Pending status (in the Active-Archive Bin file listing – see *Examining the Archiving Status Of a File In Your Active-Archive Bin,* on page 4-21). Another attempt will then be made to archive the files.
	• Pending – Number of files currently waiting to be archived.
	• Total Files – Number of files you added to the archiving queue since Document Manager was installed on your desktop computer.
Current Settings	• User Address – Your email address. Messages to and from this address are archived in your individual repository, as are all files you archive with Document Manager.
	• SMTP Server – The IP address or host name of the part of RISS that receives your documents (email messages and files) for archiving.
	• Advanced – After prompting for a password, this displays the Advanced Client Configuration Settings dialog box, which is used by a system administrator to configure your Active-Archive Bin settings. See *Advanced Use of Document Manager,* on page 4-30.

Advanced Use of Document Manager

Document Manager includes features for everyday use by everyone, as well as advanced configuration features for administrative users. This section describes the advanced features used by administrative users only.

See Also

- *Understanding Document Manager,* on page 4-8, for background on Document Manager concepts and features.

- *Document Manager User Interface,* on page 4-16, for details on the basic user interface features used by everyone.

Document Manager Clients and Server

Document Manager generally refers to a client program running on an individual user machine. This client program can be configured to suit the needs of the user, as well as your particular RISS configuration.

The client program communicates with a Document Manager server program running on RISS. The server program is configured centrally by a system administrator using system-wide settings applicable to all client Document Manager programs served by it. During client installation, the system-wide settings are used automatically to configure the client.

These following sections explain how to configure the Document Manager client program. Only a system administrator with appropriate access privileges (password) can configure client program settings. For information on configuring the Document Manager server program, contact HP.

Accessing Advanced Features

The advanced features of Document Manager are for use by system administrators only. They are used to configure a Document Manager client for a specific RISS installation and the needs of a specific user.

You access all advanced features by clicking Advanced on the Import Status panel of the My Active-Archive Properties dialog box – see *Import Status Panel Features, My Active-Archive Properties Dialog Box,* on page 4-29. Before clicking Advanced, you must turn off archiving – see *How To Turn On (Start) or Off (Stop) Automatic Archiving,* on page 4-5.
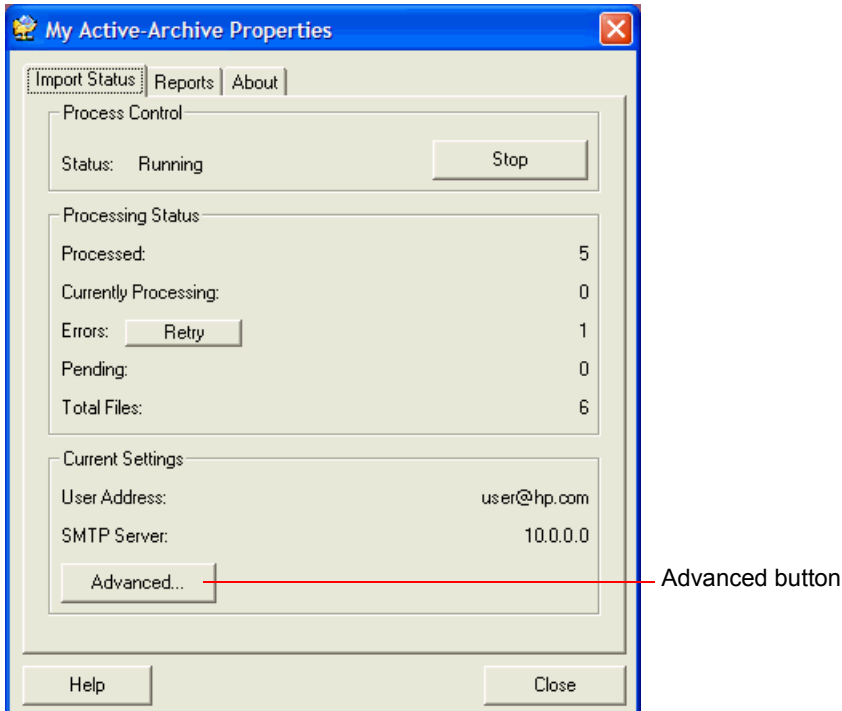
 Advanced button

Figure 4-10: Advanced button, My Active-Archive Properties dialog box

After you click Advanced, you are prompted for your administrative password. This is to prevent non-administrator users from changing the Document Manager client settings.

After you enter your password, the Advanced Client Configuration Settings dialog box is displayed. You use this dialog box to configure the Document Manager client.

Advanced Client Configuration Settings Dialog Box

You use the Advanced Client Configuration Settings dialog box to perform the following tasks:

Table 4-12: Advanced Client Configuration Settings Dialog Box Tasks

Task	Reference
Configure user settings	*Connection Settings Panel Features, Advanced Client Configuration Settings Dialog Box,* on page 4-35
Configure or check client–server connections	*Connection Settings Panel Features, Advanced Client Configuration Settings Dialog Box,* on page 4-35
Configure the maximum number of concurrent client processes	*Application Settings Panel Features, Advanced Client Configuration Settings Dialog Box,* on page 4-38
Configure treatment of PST files	*Application Settings Panel Features, Advanced Client Configuration Settings Dialog Box,* on page 4-38
Configure the log file and database	*Application Settings Panel Features, Advanced Client Configuration Settings Dialog Box,* on page 4-38
Modify database entries	*Configure Data Panel Features, Advanced Client Configuration Settings Dialog Box,* on page 4-41
Compact the database	*Configure Data Panel Features, Advanced Client Configuration Settings Dialog Box,* on page 4-41

The Advanced Client Configuration Settings dialog box has the following tabbed panels:

Table 4-13: Advanced Client Configuration Settings Dialog Box Panels

Panel	Description
Connection Settings	Client–server connections used by Document Manager: the client user address and the server connection points. See *Connection Settings Panel Features, Advanced Client Configuration Settings Dialog Box,* on page 4-35.
Application Settings	Client processing and debugging options for logging, internal files, user warnings, and treatment of PST files. See *Application Settings Panel Features, Advanced Client Configuration Settings Dialog Box,* on page 4-38.
Configure Data	Lets you perform operations on client database files. See *Configure Data Panel Features, Advanced Client Configuration Settings Dialog Box,* on page 4-41.

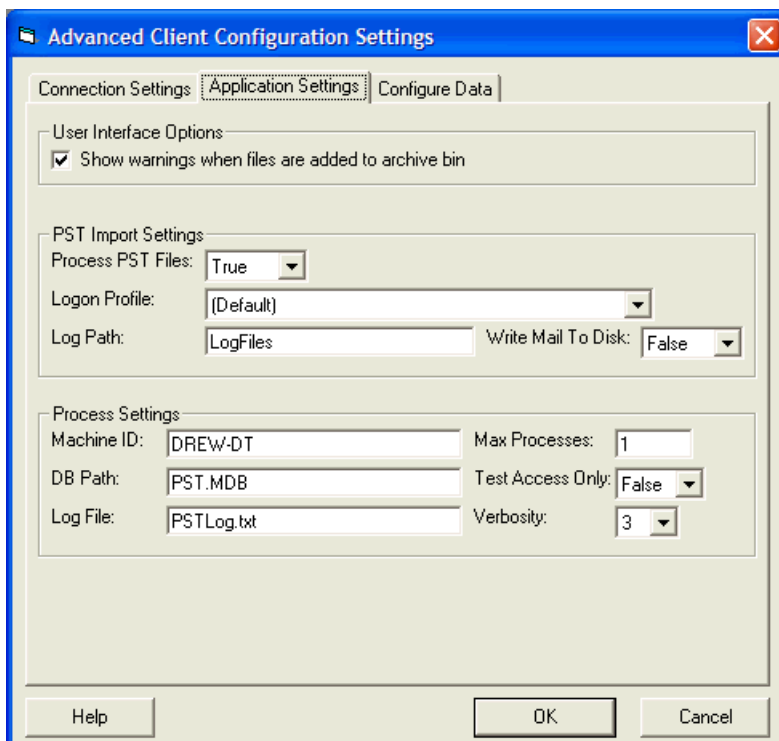# Connection Settings Panel, Advanced Client Configuration Settings Dialog Box
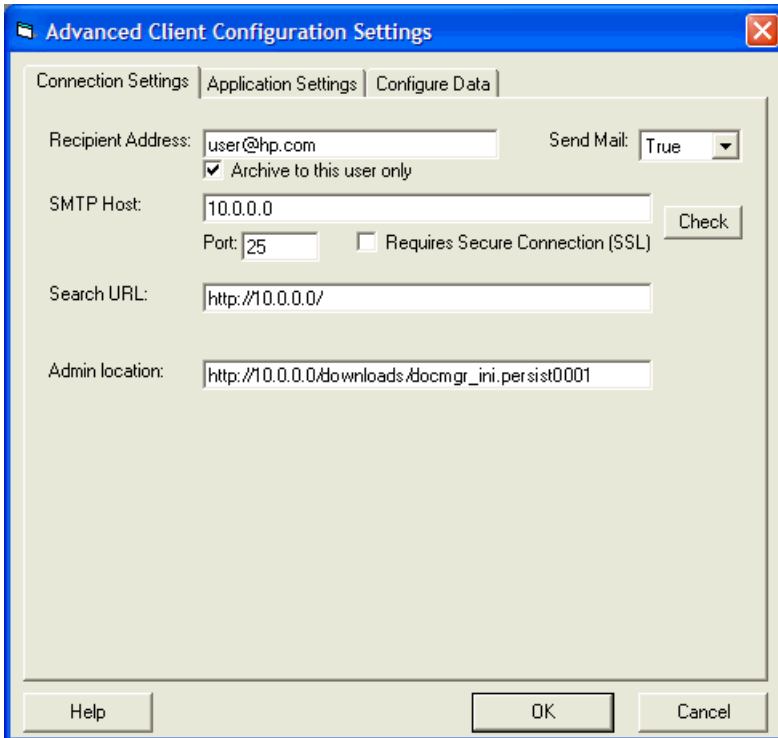
Figure 4-11: Connection Settings panel, Advanced Client Configuration Settings dialog box

You use the Connection Settings panel of the Advanced Client Configuration Settings dialog box to configure client–server connections used by Document Manager.

The Connection Settings panel has the following features:

Table 4-14: **Connection Settings** Panel Features, Advanced Client Configuration Settings Dialog Box

Feature	Description
Recipient Address	Email address of the Document Manager client user. Messages to and from this address are archived in the corresponding user repository, as are all files the user archives with Document Manager.
Send Mail	If True (default), queued files (and the email messages contained in queued PST files) are sent to the system for archiving.
	If False, documents are not sent to the system.
	For normal client processing of queued files, use True. Use False only for testing the client. If, for example, errors are repeatedly reported when processing PST files, even when this is False, this suggests a client problem.
Archive to this user only	If enabled, routing rules are ignored. Archived files are routed only to the individual user repository.
	If disabled, any routing rules defined for your RISS are applied, archiving queued files in additional repositories as specified by the rules.
	Enable this for normal processing of queued files.
SMTP Host	The IP address or host name of the part of RISS that receives documents to be archived.
Port	The port to use for communicating with the SMTP Host.
Requires Secure Connection (SSL)	If enabled, client–server connections must use secure (SSL) ports.
	If disabled, ordinary ports can be used.
	Important: Do not enable this option unless you are sure that your version of RISS supports SSL connections. Otherwise, the server will not accept any files for archiving. All files will remain Pending in the Active-Archive Bin.
Check	Click to check the SMTP Host, Port, and Requires Secure Connection (SSL) settings by attempting to connect to the server (without sending any files for archiving). Use this to test the client–server connection.
Search URL	The internet address of RISS.

Table 4-14: **Connection Settings** Panel Features, Advanced Client Configuration
Settings Dialog Box (Continued)

Feature	Description
Admin location	The internet address of the Document Manager client initialization file on the server.
	Whenever the client is launched, it retrieves this file and uses it to update client settings, which typically include:
	• Archive filter settings: types of files that can be archived, minimum file age, maximum size of a drag-and-drop operation
	• Server locations: SMTP Host, Search URL
	Leave the Admin location blank (empty) if you do not want the client to be updated by the server at each client startup. This will prevent the server from overwriting client settings.

Application Settings Panel, Advanced Client Configuration Settings Dialog Box

Figure 4-12: Application Settings panel, Advanced Client Configuration Settings dialog box

You use the Application Settings panel of the Advanced Client Configuration Settings dialog box to configure client processing and debugging options for logging, internal files, user warnings, and treatment of PST files.

The Application Settings panel has the following features:

Table 4-15: **Application Settings** Panel Features, Advanced Client Configuration Settings Dialog Box

Feature	Description
User Interface Options	
Show warnings when files are added to archive bin	• If disabled, the user is not warned about possibly non-indexable file contents. • If enabled, the user is warned whenever the client does not recognize a file as having contents that can be indexed. However, it is RISS that actually archives and indexes documents sent to it by Document Manager. For this reason, the warning is conditional ("might not be indexed"). As far as Document Manager can determine, the file is not a loose office document.
PST Import Settings	
Process PST Files	If True (default), the email messages contained in a queued PST file are archived (provided the client has Microsoft Outlook 2000 or above). If False (or without Outlook 2000 or above), the queued PST file is itself archived, instead of its contained email messages.
Logon Profile	The Microsoft Outlook profile to use for the user when archiving email messages contained in a PST file. The (Default) choice means use the default Outlook profile (which is one of the other choices). If the user is already logged on to Outlook when archiving is started, the profile used to log on is also used for archiving. Otherwise, the Logon Profile value is used for archiving.
Log Path	Folder where, for each PST file, a log file (with extension .log) is written to record processing status, provided Process PST Files is True. Each log file contains a header that names the corresponding PST file. If the path is relative, it is relative to the client Document Manager installation directory. The default value is folder LogFiles in the Document Manager installation directory. If Process PST Files is False, Log Path is not used.

Table 4-15: **Application Settings** Panel Features, Advanced Client Configuration
Settings Dialog Box (Continued)

Feature	Description
Write Mail To Disk	If True, an additional file (with extension .txt) is written to the Log Path for each PST file. The file contains all of the email messages in the PST file. If False, no such message files are written. For normal processing of queued PST files, use False. Use True for testing, to help determine the cause of failed PST file processing. If Process PST Files is False, Write Mail To Disk is not used.
Process Settings	
Machine ID	Name of the desktop computer where the Document Manager client is located.
DB Path	Filename and path of the client database used to store information about files that have been queued for archiving (and have not been removed from the archiving queue). If the path is relative, it is relative to the client Document Manager installation directory.
Log File	Filename and path of the client log file. This file records client activity, including processing of queued files, both PST and non-PST. (See Log Path for additional PST log files.) If the path is relative, it is relative to the client Document Manager installation directory. The default value is file PSTLog.txt in the installation directory.
Max Processes	Maximum number of concurrent Windows processes used to process files queued for archiving. If this is 1 (default value), a single process is used. If this is a value *N* different from 1, up to *N* queued files are processed in parallel, using separate connections to the server.
Test Access Only	For normal processing of queued files, use False (default). Use True only for testing the client. If False, queued PST files are processed normally (according to the value of Process PST Files). If True, queued PST files are not processed for archiving at all. They are only checked for accessibility. You can see the result of this test in the Active-Archive Bin. A typical reason for PST inaccessibility is password protection during PST creation.

Table 4-15: **Application Settings** Panel Features, Advanced Client Configuration
Settings Dialog Box (Continued)

Feature	Description
Verbosity	The amount of detail included in the Log File, as follows: • 1: alerts • 2: alerts and warnings • 3: alerts, warnings, and status messages • 4: alerts, warnings, and detailed status messages

Configure Data Panel, Advanced Client Configuration Settings Dialog Box
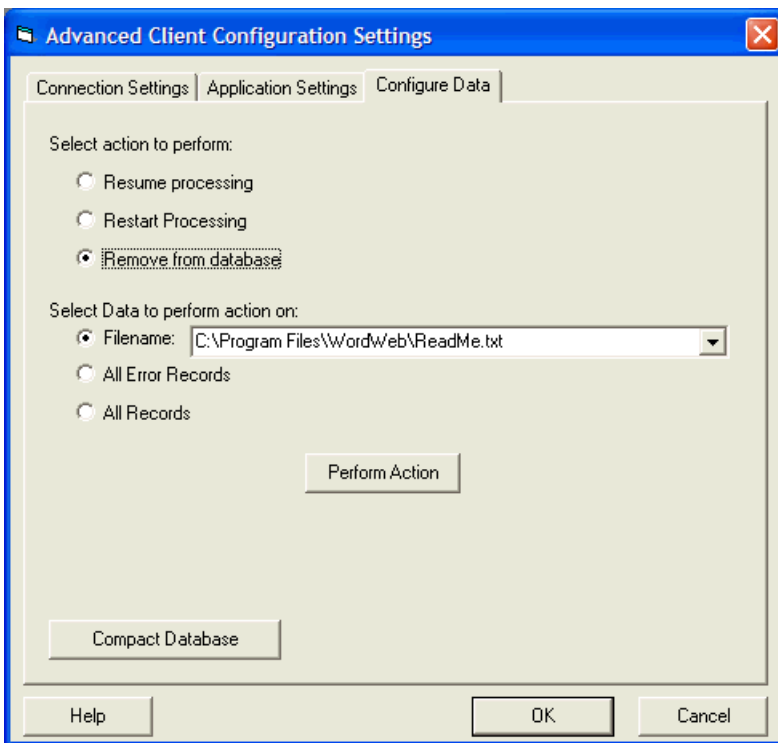
Figure 4-13: Configure Data panel, Advanced Client Configuration Settings dialog
box

The Document Manager client has a local **database** that it uses to keep track of all files a user has ever queued for archiving (since client installation). This database is created (empty) when the client is installed.

The client database includes, for each file, a record of the archiving process and the current archiving status. All of the information presented in the Active-Archive Bin and the My Active-Archive Properties dialog box (panels Import Status and Reports) is contained in the database.

The Configure Data panel of the Advanced Client Configuration Settings dialog box lets you modify the database, removing selected file entries or resetting the status of selected files.

Note: Modifying entries in the client database has no effect on documents that have already been archived on the system. In particular, removing a document from the client database does not remove it from any repositories where it was archived.

To modify the database entries for one or more files:

1. Choose the action you want to perform (Select action to perform).

2. Choose which files to apply the action to (Select Data to perform action on).

3. Click Perform Action.

You can also use the Configure Data panel to manually compact the client database by clicking Compact Database.

The Configure Data panel of the Advanced Client Configuration Settings dialog box has the following features:

Table 4-16: **Configure Data** Panel Features, Advanced Client Configuration Settings Dialog Box

Feature	Description
Compact Database	Compacts (compresses) the database. The database is compacted automatically each time the client application is launched. This button lets you do the same thing manually at any time.
	Note: You cannot compact the database while the Active-Archive Bin contents are open in Windows Explorer.

Table 4-16: **Configure Data** Panel Features, Advanced Client Configuration Settings Dialog Box (Continued)

Feature	Description
Perform Action	Click to perform the selected action (Select action to perform) on the selected data (Select Data to perform action on).
Select action to perform	
Resume processing	Resets the status of the selected files to Pending. Does not change the database history of what has already been processed, so processing continues where it left off when archiving was last stopped.
	This ensures that multiple archiving (duplicates) of the same document does not occur. For example, if some messages contained in a PST file were successfully archived but others were not, the unsuccessful messages are reprocessed but the successful messages are not archived again.
	You typically use this to try again to process files with Error status.
	Note: The Retry button on the Import Status panel of the My Active-Archive Properties dialog box performs the Resume processing action on all files that have Error status (see *Import Status Panel Features, My Active-Archive Properties Dialog Box,* on page 4-29).
Restart Processing	Resets records of the selected files, so they will be processed again from scratch. Resets the status of the files to Pending, and then restarts the archiving process.
	Note: Because any record of previous processing of the selected files is erased, any files (or email messages contained in PST files) that have already been archived are re-archived, resulting in archived duplicates.
	You typically perform this action only if there has been a serious loss of data on the system and there is no risk of creating duplicates. Otherwise, use Resume processing instead.
Remove from database	Removes the selected files from the database.
	(This does not remove the files from any repositories where they may have been archived.)
	Note: Whereas removal of files using the Active-Archive Bin popup menu item Remove is restricted to files with Pending status, there is no such restriction here.

Table 4-16: **Configure Data** Panel Features, Advanced Client Configuration Settings Dialog Box (Continued)

Feature	Description
Select Data to perform action on	
Filename	Choose a filename in the pulldown list to select it as the action target. The list contains the files referenced by All Records (see below).
All Error Records	Selects all files with Error status as the action targets; that is, all files that were queued but were not successfully processed for archiving.
All Records	Selects all files referenced by the database as the action targets; that is, all files ever queued for archiving, except those that a user or administrator removed from the queue.

C H A P T E R 5

Query Syntax and Matching

This chapter specifies the syntax you use when you submit a query to retrieve archived documents (files or email messages) and how queries are matched against documents.

It contains the following topics:

- Query Fields and Expressions, on page 5-2
- Query Expression Syntax and Matching, on page 5-3
- Query Expression Examples, on page 5-13

See Also

- Chapter 1, *RISS Overview*, for fundamental concepts.

Query Fields and Expressions

The words **query** and **search** are used interchangeably here, as both verbs and nouns. The act of querying consists of submitting a query. A query is a set of query **fields** that you have filled out. When you submit a query, HP StorageWorks Reference Information Storage System (RISS) tries to match it against all documents of the type you specify (files or email messages) in the repository you are searching.

Different query fields represent different types of information. They correspond to different fields in a document. For example, when searching for email messages, the query field From corresponds to the message field From and represents the message sender. The available fields are different for email messages and files. For example, the From field is only available for message searches. The file Extension field is only available for file searches.

During querying, query fields are checked against the corresponding fields of archived documents to see if there is a match. For a document to **match** a query, its fields must match all of the corresponding query fields. For example, if the Subject field of an email message matches the Subject field of a query, but the From fields of the two do not match, then the message and the query do not match.

Most query fields are text fields. A few, such as dates, are numerical. An empty query field, whether text or non-text, matches any document field. A non-text field is checked against archived documents using numerical comparisons appropriate to the field. For example, the date range of a message query is compared with the dates candidate messages were sent.

You fill text fields with query **expressions** that represent what you are searching for. The expressions serve as patterns to be matched against corresponding fields of archived documents. The matching operation is the same for all text fields.

Query Expression Syntax and Matching

Query Expressions Are Composed of Words

Query expressions can be as simple or as complex as you need. The essential idea behind document retrieval is that query words are compared with document words to find a match. But you can also:

- Combine query words using logical (Boolean) operators (AND, OR, NOT) – see *Boolean Query Expressions,* on page 5-10

- Look for document words that are textually similar, but not necessarily identical, to query words – see *Matching Similar Words,* on page 5-8

- Look for word sequences in a document: words that are near each other, and in a particular order – see *Matching Word Sequences,* on page 5-9

Together, these query constructs provide considerable power to find what you need, provided you learn to use them well.

The way a query expression is interpreted involves an operation similar to how documents are indexed when they are archived. The text is parsed (broken down) into **words**. The remaining characters are ignored, as separators. A query expression is fundamentally composed of words, no matter how complex it is.

For indexing and searching, a word need not belong to a natural language, such as English. For example, wt6_ht3 is a legitimate document word or query word. Some query words even contain wildcards, as in f??t.

See Also

- *Matching Words,* on page 5-7, for information on words with wildcards.

Word Characters

When RISS examines a query expression to determine its words, some characters are not included in query words, but are treated as word separators. When a document is archived, indexing determines the document words, available for searching, in the same way.

Learning the rules of creating query words thus means learning also the rules of document indexing and therefore just what words you can search for.

For example, knowing that the apostrophe character (') is a separator means knowing that you cannot search for the English word "won't" using the query text won't. More precisely, the query won't will find documents with the text "won't," but only because it is equivalent to the query won. The contraction 't is removed from both the query and the document index, as a stop word (see). You cannot distinguish documents with "won't" from documents with "won."

Word Characters and Separators

Word characters include all uppercase and lowercase letters, digits, and the following additional characters:

- **_** (underscore)
- **#** (number/pound/hash sign)
- **&** (ampersand)

All other characters are **separators** (except, in queries, the wildcards ? and *, and the special query characters ~, ", -, and !).

However, the following rule also applies:

- &&, by itself, is not a word. It is a Boolean operator. When combined with at least one more word character, && can be part of a word. For example, a&&b is a word.

Query analysis and document indexing are not case-sensitive. Uppercase and lowercase letters are treated the same.

Regular Expression Definition of English Word Characters

Note: This section provides information intended only for users familiar with regular-expression notation.

The following regular expression provides, in succinct form, a complete speci-fication of English word characters (except for the treatment of && as a non-word):

    [A-Za-z0-9_#&]+

See Also

- *Stop Words,* on page 5-7

- *Matching Words,* on page 5-7

- *Boolean Query Expressions,* on page 5-10

Letters and Digits in Different Character Sets

Letters and Digits Defined

All letters and digits are word characters. Just what the RISS software considers a letter or a digit depends on the character set encoding used. For the US ASCII encoding, the letters are uppercase and lowercase English letters (**A–Za–z**). For the ISO 8859–1 (Latin–1) encoding, used for Western European languages, accented letters are included. Most ideographic characters, such as used in Asian languages, are also considered letters.

Whatever the language and encoding used for a particular document (file or email message), the RISS software maps encoded characters to the Unicode 2.0 standard. The Unicode 2.0 standard is then used to determine if a given character is a letter or a digit (or neither):

- A **letter** is any Unicode character in one of these Unicode categories: Ll (lowercase letter), Lu (uppercase letter), Lt (titlecase letter), Lm (modifier letter), or Lo (other letter).

- A **digit** is any Unicode character whose Unicode name contains the word DIGIT, provided it is not in the range \u2000 (en quad = en space) through \u2FFF (ideographic description – future).

  This includes the digits of the following character sets: ISO 8859–1 (Latin–1), Arabic-Indic, Extended Arabic-Indic, Devanagari, Bengali, Gurmukhi, Gujarati, Oriya, Tamil, Telugu, Kannada, Malayalam, Thai, Lao, Tibetan, and Fullwidth.

For information on Unicode 2.0, refer to the following web site:

- http://www.unicode.org

For information on ISO 8859-1, refer to the following web sites:

- http://wwwwbs.cs.tu-berlin.de/user/czyborra/charsets/

- http://www.iso.ch/

- http://www.microsoft.com/globaldev/reference/iso/28591.htm

Letters and Digits in Files

Although all letters and digits are word characters, their treatment in files (including email message attachments) depends on the character encoding used. You can search for any words in email message bodies and headers, regardless of the encoding.

You cannot search for words in files (including email message attachments), unless the character encoding is ISO 8859–1 (Latin–1).

This applies only to the contents of files. External information identifying files, such as filenames, is treated the same as message header and body information.

Caveats Concerning Non-English Words

The following caveats apply to non-English words:

- The stop words are English only. This means, for example, that you cannot search for the French word but, meaning goal, because of the (English) stop word but.

- Because separators are defined as non-word characters, the determination of searchable words is not always appropriate for non-Western languages.

  For example, a series of Chinese letters (as defined by the Unicode standard) with no intervening separators (as defined by RISS) is parsed as a single word for purposes of indexing and querying. Semantically, a single Chinese letter often corresponds to a conceptual word, but it is not parsed as a word.

Stop Words

Some words, called **stop words**, are ignored altogether by the search engine and the document indexer, so there is no sense using them in query expressions. Stop words correspond to very common English words (or contraction endings: s, t). These are the stop words:

a, **and**, **are**, **as**, **at**, **be**, **but**, **by**, **for**, **if**, **in**, **into**, **is**, **it**, **no**, **not**, **of**, **on**, **or**, **s**, **such**, **t**, **that**, **the**, **their**, **then**, **there**, **these**, **they**, **this**, **to**, **was**, **will**, **with**

Note: The current set of stop words is appropriate only for English documents and queries. Nevertheless, you can archive non-English documents and you can use non-English (ISO 8859–1 Latin–1) letters in queries.

See Also

- *Query Expression Examples*, on page 5-13, for examples of query expressions with stop words.

Matching Words

Matching of words is not case-sensitive: cat, Cat, cAt, and CAT all match each other. Corresponding uppercase and lowercase letters, such as A and a, are treated the same in all respects.

There are two kinds of query words: words that contain occurrences of one or both of the **wildcard** characters * and ?, and **literal words** that do not contain wildcards.

A literal word in a query expression matches the same word, character for character (case ignored), in an archived document. A word with wildcard characters (* or ?) matches a document word in the same way, character by character, except:

- **?** – matches any single character in a document word. For example, b??t matches beat, beet, boat, blot, best, bust, bout, and so on.

- ***** – matches any sequence of characters in a document word, including a sequence of no characters. For example, f*t matches the document words foot, feet, fit, fault, and ft; f* matches any document word beginning with f.

You can use any number of wildcard characters (* or ?) in a query word, but you cannot use a wildcard at the beginning of a query word. (An error message will result.) For example, *ion is not a valid query.

See Also

- *Query Expression Examples,* on page 5-13, for examples of query expressions with literal words and words with wildcards.

Matching Similar Words

Fuzzy Words

You can search for document words that are textually similar to a given literal query word (that is, one that contains no wildcards). You do this by appending a tilde (**~**) character to the word, creating a **fuzzy word**. For example, the fuzzy word define~ will match the similar words defined and definite (but not defining, definition, indefinite, or pine). It will also match define itself.

See Also

- *Query Expression Examples,* on page 5-13, for examples of query expressions with fuzzy words.

How Word Similarity Is Measured

Note: This section provides an in-depth explanation of how word similarity is measured. In most cases, you do not need to be concerned with just how similar two words must be in order to match. However, when interpreting the results of complex queries, this information can help you better understand why you obtain the results you do.

The edit distance (also called Levenshtein distance) between two words is the number of single-character operations needed to change one into the other, where an operation is a deletion, replacement, or insertion.

For example, the edit distance between define and pine is three: two deletions (de) and one replacement (f by p). The distance between define and definite is also three (e replaced by i; te inserted).

So, why does the search engine consider define more similar to definite than to pine, even though the edit distances are the same (three)? Because the edit distance (number of character changes) is compared to the word length (of the shorter of the query and document words). Two words are closer, for purposes of querying, if it takes less to change one into the other, relative to their lengths.

The similarity ratio used by the search engine is thus d/min(query, doc), where d is the edit distance, min is a function that returns the lesser of its arguments, and query and doc are the lengths of the query word and document word, respectively. A fuzzy word **matches** a document word if this ratio is no more than 0.5.

Examples:

Words Compared	Similarity Ratio	Match?
define, definite	3/min(6, 8) = 3/6 = 0.5	yes
define, pine	3/min(6, 4) = 3/4 = 0.75	no (0.75 > 0.5)

Matching Word Sequences

You can use word sequences to find documents with words in a specified order that are separated a specified maximum distance.

Simple Word Sequences

To search for an ordered sequence of words, use a **simple word sequence**: a list of literal query words (no wildcards) separated by spaces (or other separators) and enclosed in double-quotes (**"**). A document **matches** a simple word sequence if all the words occur in the document in the same order, with no intervening words.

For example, the sequence "like rolling stone" matches a document with the text "like a rolling stone" (the stop word "a" is not indexed), but it does not match a document with the text "like a large rolling stone" because of the intervening word "large."

Proximity Word Sequences

Simple word sequences let you search for words that are separated by separators but not by other words (except stop words). To search for document words that are in an ordered sequence, but that may be separated by other words, use a **proximity word sequence**.

To write a proximity word sequence, you use the same syntax as that of a simple word sequence, but you append a tilde (**~**) character to the second double-quote, and follow that with a proximity value numeral. The proximity value represents the maximum number of other document words that can occur between any two successive words of the sequence. A document **matches** a proximity word sequence if all the words occur in the document in the same order, with at most N intervening words, where N is the proximity value.

For example, the sequence "bird garden stone"~3 will match any document that has these three words in this order, with bird and garden separated by no more than three words, and garden and stone separated likewise. It will match a document with the text "a *bird* in the rose *garden* is sitting near a flat *stone*" because (besides stop words) there are at most three words between successive sequence words. It will also match "a *bird garden* with a *stone*" for the same reason.

Simple word sequences are a special case of proximate word sequences: "..." = "..."~0. Note also that any documents found by "..."~N will also be found by "..."~M, whenever M > N.

See Also

- *Query Expression Examples*, on page 5-13, for examples of query expressions with word sequences.

Boolean Query Expressions

Boolean Operator Syntax

You can combine words, fuzzy words, and word sequences using the Boolean (logical) operators AND, OR, and NOT (these must be uppercase). The following table describes the Boolean operators, where each of *exp*, *exp1*, and *exp2*

represents a word, fuzzy word, word sequence, or another Boolean query expression (nested in parentheses – see *Nested Boolean Query Expressions, on page 5-12*).

Table 5-1: Boolean Query Expressions

Syntax	Matches
NOT *exp* alternative syntax: **-** *exp* alternative syntax: **!** *exp*	all documents that do not match *exp*
exp1 **OR** *exp2*	all documents that match either *exp1* or *exp2*
exp1 **AND** *exp2* alternative syntax: *exp1* **&&** *exp2* alternative syntax: *exp1 exp2*	all documents that match both *exp1* and *exp2*

Note: The second alternative syntax for AND indicates that AND is the default connective in query expressions. You do not need to supply AND explicitly. It is assumed if neither AND nor OR is used explicitly. For example, the query peace quiet is equivalent to the query peace AND quiet.

A NOT expression must be combined, using AND or OR, with another expression other than NOT (see *Nested Boolean Query Expressions*, on page 5-12). A query cannot consist solely of negative criteria.

NOT quiet	illegal
(NOT quiet) AND (NOT blue)	illegal
(NOT quiet) AND blue	legal
(NOT quiet) OR nois*	legal
(NOT quiet) OR "peace quiet"	legal

You must provide the proper number of arguments for a Boolean operator, or an error message will result: one argument for NOT (-, !), two arguments for each of AND (&&) and OR. For example, these queries will each result in an error message:

- alpha NOT – missing argument for NOT

- AND alpha – missing argument for AND

Boolean operators must be surrounded by one or more separators, typically whitespace. For example, the query peas&&carrots is not equivalent to the query peas && carrots; peas&&carrots is a single word (& is a word character).

The negation operators **-** and **!** are exceptions to this rule. They must each be preceded by a separator, but they need not be followed by a separator. For example, carrot-a6 is a single query word, but carrot -a6, like carrot (- a6), is equivalent to the Boolean expression carrot AND (NOT a6).

Note: You cannot search for the words and, or, or not, even using lower-case query words, because these are stop words (see *Stop Words, on* page 5-7).

Nested Boolean Query Expressions

Boolean query expressions can be nested, by using Boolean expressions as arguments of Boolean expressions. To do this, you must enclose the nested expression in parentheses (**(,)**). For example, the following query searches for documents containing bird, but neither garden nor stone:

    bird AND (NOT (garden OR stone))

You must provide the same number of opening as closing parentheses, and they must be properly nested, or an error message will result. For example, these queries will each result in an error message:

- bird AND (NOT (garden OR stone) – missing right parenthesis at the end

- bird AND) NOT (garden OR stone( ) – improperly nested parentheses

For clarity, always use parentheses for nested query expressions.

Query Expression Examples

Here are some examples of query expressions, with references to the pertinent syntax documentation.

Table 5-2: Query Expression Examples

Query Expression	Finds Documents With . . .	Reference(s)
peace OR quiet	Either peace or quiet, or both, in either order.	*Boolean Query Expressions*, on page 5-10
peace quiet peace AND quiet peace && quiet	Both peace and quiet, in either order.	*Boolean Query Expressions*, on page 5-10
peace&&quiet	The single word peace&&quiet.	*Boolean Query Expressions*, on page 5-10
peace or quiet	Both peace and quiet, in either order. This is the same as the query peace quiet. The word or is a stop word because it is lowercase, and therefore, it is ignored. The OR operator must be uppercase.	*Boolean Query Expressions*, on page 5-10
not quiet	The word quiet. This is the same as the query quiet. The word not is a stop word because it is lowercase, and therefore, it is ignored. The NOT operator must be uppercase.	*Boolean Query Expressions*, on page 5-10
NOT quiet	Illegal. A query cannot be purely negative and must have some positive expression.	*Boolean Query Expressions*, on page 5-10
NOT NOT quiet	Illegal. Parentheses are needed: NOT (NOT quiet).	*Boolean Query Expressions*, on page 5-10
peace & quiet	The three words peace, &, and quiet, in any order. & is a word character. The AND operator is implied.	*Word Characters*, on page 5-3 and *Boolean Query Expressions*, on page 5-10

Table 5-2: Query Expression Examples (Continued)

Query Expression	Finds Documents With . . .	Reference(s)
peace | quiet	Both peace and quiet. | is a separator. The AND operator is implied.	*Word Characters*, on page 5-3 and *Boolean Query Expressions*, on page 5-10
peace AND (NOT quiet) peace && -quiet -quiet && peace	The word peace but not quiet.	*Boolean Query Expressions*, on page 5-10
peace AND quiet OR silence	Avoid using. Parentheses are needed: peace AND (quiet OR silence).	*Boolean Query Expressions*, on page 5-10
quiet OR silence AND peace	Avoid using. Parentheses are needed: quiet OR (silence AND peace).	*Boolean Query Expressions*, on page 5-10
pea*	Any word starting with pea such as: pea, peas, peace, or peach.	*Matching Words*, on page 5-7
pea*c*	Words such as: peace, peach, or peaches.	*Matching Words*, on page 5-7
"peace quiet"	Both peace and quiet, in that order, with no intervening words. Examples: peace quiet, peace and quiet (because and is lowercase and a stop word), or peace $^%+{} quiet.	*Matching Word Sequences*, on page 5-9
"peace quiet"~1	Both peace and quiet, in that order, separated by at most one word. Examples: peace and quiet; peace, now;%^$ quiet; peace quiet; or peace george quiet.	*Matching Word Sequences*, on page 5-9
peace~	Words similar to peace such as: peaches, piece, place, or plate.	*Matching Similar Words*, on page 5-8
(peace quiet) AND (NOT "peace quiet")	Both peace and quiet, but not peace followed immediately by quiet. Examples: quiet peace; quiet blue peace; or peace, water, land, quiet. This rules out peace and quiet because and is a stop word.	*Matching Word Sequences*, on page 5-9 and *Boolean Query Expressions*, on page 5-10

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